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THE PHYSIOLOGIC APPROACH TO OTOLARYNGOLOGY

CHAIRMAN'S ADDRESS

RALPH A. FENTON, M.D.

PORTLAND, ORE.

The great progress that has come to the specialty of otolaryngology in America during the past fifty years makes it profitable to take account of the stages by which this advance has been achieved. The exactions of professional education and the demands of a busy practice not infrequently prevent one from following collateral lines of medical reading and may interfere with one's awareness of the discoveries which may—not now perhaps, but later—become the foundations of an increasingly valuable system of diagnosis and therapeutics.

It is of course much easier to follow remembered routine from special internships or from intensive courses of study, without bothering to add thereto anything save some highly touted medicament or impressive bit of apparatus recommended by pharmaceutical detail men or pseudomedical advertising magazines. Careful tests by the Council on Physical Therapy and the Council on Pharmacy and Chemistry are available for all such matters, and some of us might be saved eventual embarrassment by resort to their records, before rushing into print in praise of therapeutic methods that are based on special financial returns to certain manufacturers or promoters. Empiricism, whether based on laziness or on credulity, has never spelled progress. "Such intemperate promises readily insinuate themselves into the minds of youth, who, ignoring the many almost unconquerable difficulties lying ahead, proceed with bold independence and then find themselves in difficulties, to the prejudice of their own reputations and of the health of others"; thus wrote Antonio Scarpa, surgeon-anatomist, 135 years ago.

Perhaps some may more readily accept such hearsay evidence because most of us, as otolaryngologists, are graduates of the school of anatomic rather than pathologic or physiologic research; and on such anatomic foundations have been built splendid surgical knowledge and incomparable refinements of technic.

Scientific method, however, would include accurate determination of the physiologic data respecting each branch of our specialty, and of the resultant pathologic changes. We have perhaps been sent on a detour by the insistence of our confrères the internists for eradication of focal infection. We have shared enthusiasm and disillusion respecting bacterial infestations, opsonins, toxins, resistance, vaccines, and the like. On the basis of known values established in the cure of deficiency diseases with otorhinologic complications, elaborate dietary systems and biochemical indexes have been set up for easy clinical application to all sorts of cases; and here disappointment has often followed. Too rarely are our most expert clinicians well grounded in otolaryngologic histopathology, a defect rapidly being remedied in graduate teaching.

The physiologic approach to otolaryngology was for many years a matter of measurement of motor or sensory functions—hearing and vestibular tests, olfactometry, vocal cord movements, nasal air capacity and currents and the like, all valuable clinical indexes, based however on gross phenomena. Of recent years, with the collaboration of highly trained histopathologists, biochemists, physiologists and endocrinologists, many important contributions to the physiology of our specialty have appeared.

Experimental observations, begun with frogs, rabbits, dogs and cats, carried on with monkeys and eventually demonstrated in man, have extended our knowledge of the cellular activities of normal and diseased ciliated membranes and have explained the growth, destruction and regeneration of these structures. Vital staining has had an important rôle in this study, as also on the revaluation of the problems of pneumatization of the temporal bone and of osteogenesis following osteomyelitis. The fibrogenic powers of phagocytic connective cells have been demonstrated.

Artificial sinus infections have been studied to disclose the etiology of cyst and abscess formations, of osteomyelitis of the frontal sinus, of epidural abscess. Nasal mucus has yielded up its protective content of lysozyme, and its normal immune powers have been enhanced by astringent applications. Viruses within this secretion have been isolated, vitally cultivated, and preserved while transported from Point Barrow to New York, and routes of other viruses into the central nervous system along the olfactory sheaths have been discovered.

In otology, mensuration of cochlear function has been carried into the eighth nerve, tone by tone, through electrical amplification. The ossicular muscles have been studied under the dissection microscope and their specific responses to sound stimuli accurately reported. From the vestibular system, six separate pathways for forced movements have been worked out, and the complex anatomy of the cerebellum has been unraveled through careful study of its developing tracts in the lowest vertebrates. The use of human immune serum instead of vaccines, and of transfusion instead of jugular ligation, has offered hope in recent otologic practice, in meningitis and in sinus thrombosis.

Read before the Section on Laryngology, Otology and Rhinology at the Eighty-Seventh Annual Session of the American Medical Association, Kansas City, Mo., May 14, 1936.

Causing the vibrating vocal cords to stand still on a given note through stroboscopy now affords accurate analysis of vocal faults and incipient paralysis. Far more valuable clinically was the mapping and identification of the bronchial end-organs and innervations concerned in coughing. Study of the pathology of atelectasis, of bronchiectasis, of silicosis, of pulmonary malignancy, has been worked out under the bronchoscope. Perhaps similar interpretation of increased fibrosis and glandular proliferation low in the esophagus may be reached by esophagoscopic study.

Dr. Mosher twelve years ago set up several unsolved problems for otolaryngology. The problem of meningitis may yet be managed through better understanding of brain physiology. That mucous membranes contain phagocytic mesenchymal cells which develop into fibroblasts explains connective tissue formation in deaf ears but doesn't get rid of it. Radiation effects in malignancy have been carefully reported. Death of lymphocytes with release of their contained immune substances and inrushing of phagocytes is a constant finding after irradiation of low intensity. The tonsil problem, also, receives a physiologic rather than a surgical interpretation at present. Epidemiologists have definitely incriminated the nose as a portal of infection for the so-called virus diseases. Such in brief are some physiologic answers to the "unfinished business" of 1924.

Here are some new problems recently propounded: Are the viruses, known already to be transmissible, possible of isolation as crystallizable protein compounds? Are these nonliving compounds needed catalyzers to permit bacterial invasion? What is the nature of allergic sensitivity and how may it act within the central nervous system, notably of the vestibular end-organs and the basal cisternae? How often are migraine and vertigo allergic? What is the biochemistry of endocrine products as applied to otosclerosis, to asthma and to mucosal edema? Is the body's resistance to infection based on its oxygen intake? How may we solve the problem of lymphatic drainage from the sinuses? What is the exciting factor in carcinoma?

It will be seen that some of these matters depend on the autonomic nervous system, on which, as on the sinuses in years past, many surgical attacks are now being made. But the physiology of this great system is far from clear, and its ramifications are infinitely difficult in our special field.

Knowledge of the fundamentals of otolaryngologic physiology, interrelating various new discoveries and applying them to our field, will not teach us anything about surgical indications or surgical technic. But it may lead to a better understanding of the need for surgery and will be of great help in the application of modernized principles of immunity for the prophylaxis of disease of the upper respiratory tract.

Mosher once said "There is no pleasure so great as having your little try at the solution of some medical problem. . . . Support or no support, research work has been done for years on the side, as it were, and probably always to a certain extent will be done in this way. You and I have so done it. Better men than we will do the same. The urge to do it has come down the ages. . . . The worker is not to be pitied. Rather he is to be envied, because . . . the world of medicine becomes for him a world of romance."

Given such leaders and such inspiration, otolaryngology in America will continue its progress, through insistence on higher standards of individual preparation, and greater interest by individuals thus prepared in the physiologic relationship of our special field to the various systems of the body as a whole. Team work with other members of hospital staffs often points to the way to interesting bits of research. Each one among us, however far away from others in the specialty, should feel that he is a collaborator, through his reading and his papers before local medical groups, in the task of apprizing the general profession that we are not immediately bent on drastic surgery but that we are building, through physiologic and pathologic knowledge, a sound foundation for the medical and surgical otolaryngology of the future.

1020 Southwest Taylor Street.

THE INCREASED METABOLISM OF OBESITY

USE AND ABUSE OF METABOLIC STIMULANTS

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NEW YORK

The title of this article was chosen to focus attention on the fact that with increasing weight there is concomitantly an increasing total resting metabolism. That is, a person produces more heat when overweight than at normal weight. For instance, in the individual at normal weight under basal conditions heat is being produced at a certain rate per unit of surface area. When the same person increases his weight, for example by 50 per cent, the surface area is also increased to accommodate this additional fat. If the heat production per unit of surface area is the same in the two instances, the total heat production in the obese state is obviously greater.

This relationship between weight and total metabolism has long been known [1] but has been obscured by the emphasis that has been placed on basal metabolism to the exclusion of the total. Evans and Strang [2] Du Bois [3] and Newburgh [4] have recently called attention to the importance of giving heed to the total metabolism.

Basal metabolism as usually reported is the heat production per unit of body surface per unit of time (calories per square meter per hour), whereas total metabolism (total heat production) is the heat production of the organism as a whole per unit of time (total calories per hour), both measurements taken at complete rest. The basal metabolism is customarily expressed in terms of percentage above or below an average normal established for an individual of the same sex-age incidence. The total resting metabolism is likewise expressed in this article in percentage above or below an assumed normal.

From the Department of Medicine, New York Post-Graduate Medical School and Hospital.
The authors are indebted to Mr. Arthur Gallagher and Mr. Samuel Member for assistance in compilation of the data and preparation of the charts.

1. Harris, J. A., and Benedict, F. G.: A Biometric Study of Basal Metabolism in Man, Carnegie Institution of Washington, 1919.
2. Strang, J. M., and Evans, F. A.: The Energy Exchange in Obesity, J. Clin. Investigation **6**: 277 (Oct.) 1928.
3. Du Bois, E. F.: Total Energy Exchange in Relation to Clinical Medicine, Bull. New York Acad. Med. **9**: 680 (Dec.) 1933.
4. Newburgh, L. H.: The Importance of Actually Measuring the Total Heat Production, Arch. Int. Med. **8**: 459 (Oct.) 1934.

The question may be asked, Why does surface area enter into the calculation? Why is basal metabolism expressed as calories per unit of surface area instead of for the total surface area? Because empirically a close relationship has been discovered between surface area and vital protoplasmic mass. The volume of such protoplasmic mass can be estimated from the surface area and thus, since surface area represents protoplasmic mass, definite comparisons are possible between heat outputs per unit of surface area of different individuals.

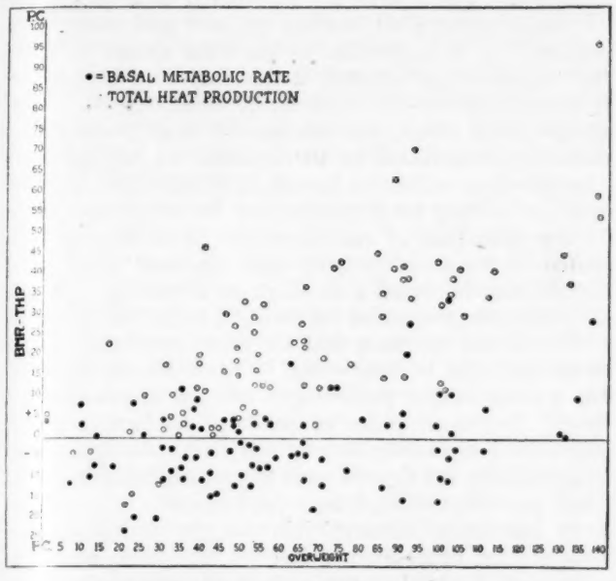

Chart 1.—Basal metabolic rate (calories per square meter per hour) and resting total heat production (total calories per hour) in overweight. Both are expressed in percentage above or below the theoretical normal.

Such a relationship between heat producing protoplasmic tissue and surface area thus constitutes a valid basis for comparison of metabolic rates when weights (and surface areas) are within normal limits. When some abnormal accumulations such as water or fat occur, an expression of the basal metabolism as calories per unit of body surface does not give a true picture of the total metabolism or of the rate of energy exchange in the vital heat-producing body tissue cells. Since such accumulations are relatively inert[5] and not direct heat producers, they might be regarded as parasitic in that they derive their heat largely from functioning muscle and gland protoplasm. Nevertheless they increase the total body surface area. The calories per unit of surface area (the basal metabolism) can remain normal (as is usually the case in fat accumulations) and yet the total heat output be greatly increased over what it would be at normal weight.

5. To demonstrate that fat tissue takes little part in the production of body heat, we carried out the following experiment having a direct bearing on this question: A long needle with a thermocouple at the point was introduced through a thick layer of fat in the gluteal regions of obese individuals. The temperatures were recorded by means of an electrical recording apparatus. It was found that the lowest temperature was just beneath the skin and that the temperature gradually rose as the muscle was approached. A sudden abrupt elevation to the usual body temperature was finally noted and was assumed to be at the point of entry of the thermocouple into the muscle.

METHOD OF STUDY

Determinations of metabolic rates were done by the gas analysis method in the respiration laboratory of Dr. C. V. Bailey, the Du Bois standards being used.

The total calories per hour of the obese subjects at rest were compared with the established normal standards for an individual of the same sex and age having normal weight and surface area.

The theoretical normal of total calories per hour for an individual was determined by multiplying his normal number of calories per square meter per hour (Du Bois standards) by his square meters of surface area if he were at normal weight. The assumed normal weight was obtained from insurance charts with due consideration of sex, age, height and frame. From the height and normal weight, the normal surface area was obtained by nomogram.

In obese individuals the resting total heat production is almost always above normal. The greater the percentage of overweight, the greater is the percentage elevation of the resting total metabolism.

RESULTS OF STUDY

Chart 1 is a graphic representation of the basal metabolic rate and resting total heat production in ninety-nine overweight patients. The ordinate represents the percentage of metabolism above or below normal, while the abscissa represents the percentage of overweight. It will be noted that the overweight cases range from normal to 135 per cent above normal. In the lower overweight percentages the majority of the basal metabolic rates are below normal, whereas in the more marked cases higher rates prevail. This upward trend of metabolism is much more noticeable in the total heat production. In all cases presenting 20 per cent and more of excess weight, the average percentage of overweight was 62, of basal metabolism + 1 and of the total heat production + 22.5.

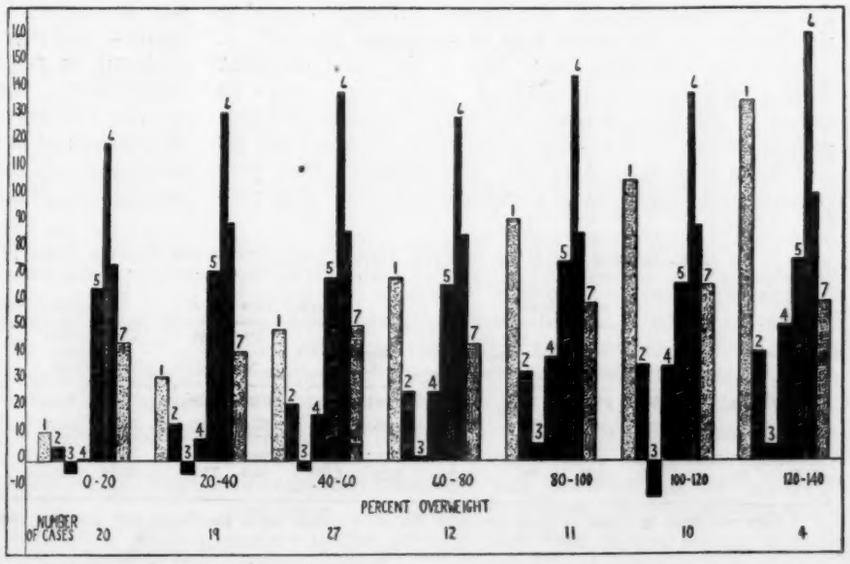

Chart 2.—Percentage increase of surface area and total heat production that accompanies overweight. Note also the upward trend of the basal metabolic rate and the blood pressure with increasing obesity. 1. Per cent overweight. 2. Surface area. 3. Basal metabolic rate. 4. Total heat production. 5. Basal pulse. 6. Blood pressure. 7. Pulse pressure.

A further attempt to show trends is represented in chart 2. In each group of columns is expressed the average percentage of overweight and of increase of surface area, basal metabolic rate, resting total heat

production, basal pulse rate, blood pressure and pulse pressure. These data are averaged for groups of 20 per cent of overweight (i. e., 0-20, 20-40, 40-60, and so on). Averages of overweight increase progressively from 11 per cent in the first group to 136 in the last. The average basal metabolism shows an upward trend from minus 4.5 in the first group to plus 5.5 in the last. A decided exception is seen in the 100 to 120 per cent overweight group, in which the average basal metabolism is minus 14. This group contained ten patients, of whom three had plus basal and seven had distinctly diminished rates. So definite is the upward trend of the basal metabolism with increasing overweight, however, that we feel confident that a larger series of cases in this group would average well above the normal.

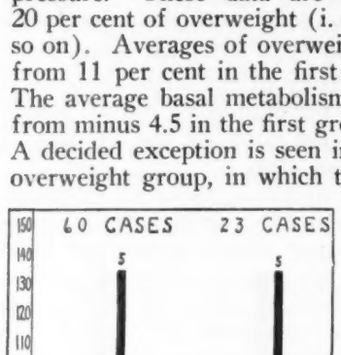

Chart 3.—Cases grouped according to basal pulse rates: group 1, in which averages of pulses were below 80; group 2, in which averages of pulses were above 80. 1. Pulse. 2. Per cent overweight. 3. Basal metabolic rate. 4. Total heat production. 5. Blood pressure. 6. Pulse pressure.

The surface areas and resting total heat productions show the expected increase with progressive overweight. There is a definite increase in the blood pressures and pulse pressures in the higher ranges of overweight. Average pulse rates on this chart reveal nothing of moment, although a possible significance of the pulse rate is suggested in chart 3.

Since an increased pulse rate is the most constant finding in increased metabolism, eighty-three cases in excess of 20 per cent overweight were divided into two groups, those with resting pulse rates of less than 80 and those with rates over 80. The average pulse, percentage overweight, basal metabolic rate, total heat production, blood pressure and pulse pressure were taken for each group. The results are expressed in chart 3.

The average pulse was 65 in the first group and 85 in the second; percentage overweight 61 in the first and 73 in the second; basal metabolic rate —1 in the first and +6 in the second; resting total heat production +17 in the first and +33 in the second; blood pressure 137/89 in the first and 137/88 in the second; pulse pressure 49 in the first and 52 in the second. These figures show that tachycardia occurred in the more pronounced overweight group with an average increase of 7 per cent in the basal metabolism and of 16 per cent in the total heat production.

THEORETICAL CONSIDERATIONS

It is evident from the foregoing that in obesity there is an increase in the total metabolism. Since fat is comparatively inert, this increased heat production must be brought about by an increased activity of the muscle and gland tissues of the body. Apparently the muscle and gland cells are stimulated to a higher rate of oxidation with an increase of heat and energy production. It is impossible to state the extent to which the fat tissue participates in this increased activity but it is probably only to a relatively small degree. Other things being equal, the increase of heat production is directly proportional to the increase of surface area. Conversely, a reduction in weight brings about a reduction of resting total metabolism in direct proportion to the reduction of surface area. This is well illustrated in the accompanying table (patient M. S.). It should also be noted that all cases showed a reduction of total heat production following a reduction in weight.

We do not maintain that the exact percentage of fat in the body can be determined by the methods employed; the excess weight percentages are but approximate at best. The same must be said for surface area estimations as ordinarily determined from nomograms and consequently for figures used to express basal metabolic rates and relative total heat productions.

It has been shown [6] that weight reduction with proper diet represents a loss of fat, with associated salts and fluids, but not a loss of muscle and gland tissue, since nitrogen equilibrium and a constant level of creatinine excretion are maintained.

The question naturally arises as to the modus operandi of the increased metabolism in obesity. Since the thyroid gland is known to be one chief regulator of the metabolic rate, it would seem logical to assume that it might play a part in this connection. Certain indirect evidence of increased thyroid activity has been adduced in addition to the simple fact of increased metabolism. Increased pulse rates and blood pressures in the higher ranges of total metabolism, frequent diminution of dextrose tolerance [7] and a general upward tendency of the basal metabolisms with increasing weight are all suggestive. That hyperthyroidism could exist without an abnormally high basal metabolism might appear to be somewhat revolutionary according to current diagnostic concepts but in our opinion is not beyond the realm of possibility. Final statements cannot be made without further study of this question.

Cases Showing the Drop in Total Heat Production in the Resting State Which Follows Weight Reduction *

			Weight				Surface Area				Basal Metabolism				Total Heat Production			
			Pounds		Per Cent Above Normal		Square Meters		Per Cent Above Normal		Calories per Sq. Meter per Hour		Per Cent ± Normal		Calories per Hour		Per Cent Above Normal	
Case	Sex	Age	First	Final	First	Final	First	Final	First	Final	First	Final	First	Final	First	Final	First	Final
M. S.	♀	37	228	159	73	20.0	2.06	1.77	27	9.0	33.65	33.5	— 8.0	— 8.0	69.3	59.4	+17	+ 0.6
M. P.	♀	47	189	143	73.1	8.4	1.81	1.61	17.5	4.5	31.21	27.0	—10.9	—23.0	56.49	43.58	+ 5	—19.0
M. W.	♀	38	239	179	64.8	23.0	2.10	1.86	20.7	6.8	36.27	32.65	+ 1.0	— 9.0	76.16	60.73	+22	— 4.0
H. B.	♀	43	288	197	86	27.0	2.29	1.95	66.0	11.0	39.54	36.2	+10.0	+ 0.2	90.54	70.6	+46	+13

* Note the drop in total calories per hour (in M. S.) even when the basal rate remains constant.

METABOLIC STIMULANTS

Since in obesity there is already an increased total metabolism, the giving of metabolic stimulants in the form either of thyroid preparations or of drugs such

6. Strang, J. M.; McClugage, H. B., and Evans, F. A.: The Nitrogen Balance During Dietary Correction of Obesity, Am. J. M. Sc. **181**: 336 (March) 1931.
7. Unpublished data.

as dinitrophenol is entirely illogical. At this stage such stimulants are not well tolerated. It was the experience of one of us (J. J. S.) that thyroid extract caused toxic symptoms to become manifest very rapidly in a number of such cases, although the explanation at the time was not well understood. As pointed out by Evans and Strang,[2] many obese patients with high total heat production already manifest certain toxic symptoms characteristic of exophthalmic goiter. Additional stimulation would seem to be unwarranted and dangerous.

It is not our purpose to stress the inherent dangers in the administration of such a toxic substance as dinitrophenol. Reports of poisoning have already been noted in the literature.[8]

Is thyroid extract ever indicated in obesity? It has been our policy to administer it in certain cases with low basal metabolism without regard to the height of the total metabolism. It is a common experience to note with dietary restriction an early drop characteristic of the fasting state both in basal and in total metabolism. This takes place even before any significant amount of weight has been lost and is therefore not an expression of a diminished surface area. Somewhat arbitrarily, perhaps, we have administered thyroid extract when from clinical signs it was assumed that such a drop in metabolism had taken place. When possible, the dosage has been gaged by repeated basal determinations. In other cases the pulse rate and general symptomatology were our guide.

SUMMARY

A series of patients ranging from 1 to 135 per cent overweight has been studied as to surface area, basal metabolism, total heat production, pulse rate, blood pressure and pulse pressure. It has been shown that with an increasing percentage of overweight there is a progressive increase in the resting total metabolism and a slight tendency for an increase in the basal metabolism. A study of the pulse rate has shown that those cases presenting a resting rate over 80 were definitely more overweight than those presenting lower rates, and that the total metabolism was likewise correspondingly higher. There is a possible significance of this as relating to an increased thyroid activity. Consideration has been given to the indications for the use and nonuse of metabolic stimulants.

CONCLUSIONS

1. The total metabolism in obesity increases directly with the excess of weight.
2. The basal metabolism in obesity is usually within normal limits but tends to be in the lower ranges of normal for the slightly obese and in the higher ranges for the excessively obese.
3. The increased metabolism favors rapid weight loss on dietary restriction.
4. The employment of metabolic stimulants while normal basal and high total metabolic rates prevail is illogical and contraindicated.
5. Thyroid preparations may be employed judiciously in later stages of treatment with submaintenance diets when it can be shown or assumed that the metabolic rates have been lowered.
6. In all metabolic studies the heat production per unit of body surface (the so-called basal metabolism) and the total heat production of the organism under basal conditions should be sharply differentiated, since they represent two entirely different approaches to the problem of obesity.

580 Park Avenue.

8. Tainter, M. L.; Cutting, W. C., and Stockton, A. B.: Use of Dinitrophenol in Nutritional Disorders, Am. J. Pub. Health **24**: 1045 (Oct.) 1934. Hoffman, A. M.; Butt, E. M., and Hickey, N. G.: Neutropenia Following Amidopyrine: Preliminary Report, J. A. M. A. **102**: 1213 (April 14) 1934. Bohn, S. S.: Agranulocytic Angina Following Ingestion of Dinitrophenol, ibid. **103**: 249 (July 28) 1934. Silver, Solomon: A New Danger in Dinitrophenol Therapy, ibid. **103**: 1058 (Oct. 6) 1934.

INDUCED HYPERCALCEMIA

ITS POSSIBLE THERAPEUTIC RELATION TO THROMBOCYTOPENIC PURPURA

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AND
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In 1932 we [1] reported a case of acute hypercalcemia caused by accidental overdosage with parathyroid extract. Search of the literature reveals no other such report in man. A white boy, aged 5 years, who was being treated for severe essential purpura haemorrhagica, had received hypodermically 5 cc. (100 units) of parathyroid extract daily for a period of five days. The earliest symptom of overdosage that he presented was vomiting. This gradually increased in severity. He became progressively listless until physical depression rendered him actually in a critical condition. He was apathetic and extremely lethargic. He had an irregular fever, which reached a high of 103 F. On the beginning of the sixth day the cause of his condition was recognized and the extract was stopped. During the period of treatment (five days), therefore, he had received in all 25 cc. (500 units). The blood serum calcium was determined to be 19.6 mg. per hundred cubic centimeters of blood. Within three days the serum calcium fell to 12.1 mg. and the patient appeared normal. Seven days after the parathyroid extract had been discontinued a roentgenographic study of the long bones was negative for absorptive or other changes. It was also noted, without any significance being attached to the observation, that during the course of the administration of the parathyroid extract the bleeding time had fallen to five minutes and ten seconds. At the time of admission a reading of the bleeding time had not been concluded after two hours' observation. Concomitantly it was likewise noted that all visible bleeding had stopped. However, since the patient had previously been treated without effect with several other measures, including transfusions and injections of antivenin, it was obvious that no therapeutic result could reasonably be ascribed to the acute hypercalcemia, even if it were theoretically tenable that such a spectacular result might be expected. The occurrence of a spontaneous remission was considered a not unlikely possibility. It may be stated, however, that follow-up studies to the present time have shown no recurrence of the purpura.

Recently another case of essential purpura haemorrhagica presented itself. Here too several forms of treatment were employed, again without result. It was recalled that the case previously reported had apparently been cured, if not because of parathyroid extract, at least after the administration of large doses. Parathyroid extract was again employed, with cure apparently again ensuing. The following case is presented not necessarily as an example of a new treatment for purpura haemorrhagica, although such a possibility sug-

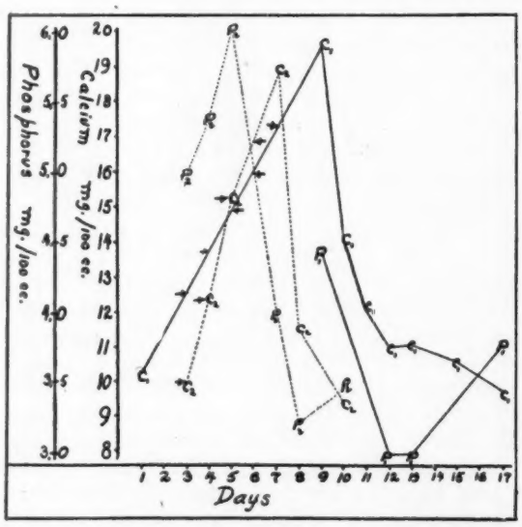
From Pediatric Service No. 1, Mount Sinai Hospital.

1. Lowenburg, Harry, and Ginsburg, T. M.: Acute Hypercalcemia, J. A. M. A. **99**: 1166 (Oct. 1) 1932.

gests itself, but rather in an attempt to help establish, with the previously reported case, the symptomatology of acute hypercalcemia or, better perhaps, of acute parathyroid poisoning in man:

M. L., a white boy, aged 7 years, was being treated for essential thrombocytopenic purpura. A little over a month after treatment had been instituted, particularly with moccasin snake venom as described by Peck and Rosenthal,[2] the patient's condition was somewhat worse than on admission. Each injection of venom was followed by extensive ecchymosis at the point of injection, and neither bleeding time nor platelet count was favorably influenced by the remedy. All other therapy, which also had been pursued without benefit, was stopped and treatment was begun, arbitrarily, with daily subcutaneous injections of 3 cc. (60 units) of parathyroid extract. Calcium gluconate, 10 cc., was given intramuscularly at the same time. This was administered to prevent depletion of the calcium content of the bones as the result of the maintenance of the artificially high blood calcium level.

Preceding the use of parathyroid extract and the calcium gluconate, for the purpose of control, the blood serum calcium



Changes in the serum calcium and phosphorus determinations in two cases. C_1 indicates calcium found in case 1; C_2, in case 2; P_1, phosphorus in case 1; P_2, in case 2. The arrows indicate administration of parathyroid extract.

was determined to be 9.7 mg. per hundred cubic centimeters of blood. Serum phosphorus was 5. The following day after treatment was begun, serum calcium was 12.3 and phosphorus 5.4 mg. per hundred cubic centimeters. Nausea and vomiting developed. These, as in the first case, are apparently the earliest symptoms of the toxic manifestations of the drug. During the evening of the second day the child complained of severe pain in the lower part of the abdomen, and some tenderness was noted just above the symphysis pubis. There was, however, no rigidity. An enema returned free from blood. The stools previously had contained blood. Pain disappeared the following morning. Apathy and lethargy developed, the patient answering questions only in monosyllables and with reluctance. He was a bright, intelligent boy and previous to the appearance of the lethargic symptoms when asked the nature of his ailment would reply smilingly that he had "thrombocytopenic purpura." All his movements became slow and were made apparently with great effort. Vomiting became progressively worse and soon was persistent. On the third day of treatment with parathyroid extract, serum calcium was 15.2 mg. and serum phosphorus 6.1 mg. per hundred cubic centimeters. On the fourth day treatment with parathyroid extract was discontinued and on the fifth day serum calcium was 18.8 and phosphorus 4 mg. per hundred cubic centimeters. On the sixth day they were 11.4 mg. and 3.2 mg. respectively. On the eighth day calcium was 9.4 mg. and phosphorus 3.4 mg. per hundred cubic centimeters. At no time was there any notable temperature elevation, although the pulse rate was markedly elevated at the height of the hypercalcemia. X-ray studies of the long bones were not made in this case.

As in the first case, there was a spectacular clinical improvement as indicated by the tourniquet test and the absence of new lesions over the surface of the body. Previous to the use of parathyroid extract some of these lesions were so large and intense as to appear as actual hemorrhages under the skin, such as would result from a heavy blow. Hematologically, soon after the beginning of parathyroid treatment the patient also showed definite objective improvement. The patient was discharged from the hospital in excellent condition, July 28, 1935. He was readmitted September 3 for a check up. Clinically he was cured, his body being free from visible lesions. His mouth and gums were normal, whereas previously large hemorrhagic extravasations had appeared in these parts as well as under the mucous membrane of the hard and soft palate and the cheeks. Hemoglobin was 90 per cent (Sahli), red blood cells 4,640,000, white blood cells 9,250, polymorphonuclears 68 per cent, large monocytes 28 per cent, transitionals 1 per cent, eosinophils 3 per cent. Coagulation time and bleeding time (both venous blood) were respectively six minutes and three minutes, platelet count 210,000, blood serum calcium and phosphorus respectively 10.6 mg. and 5.3 mg. per hundred cubic centimeters. Clot retraction was complete in one and a half hours. The tourniquet test, which had been always promptly positive within a half minute or so, was negative after three minutes.

He was readmitted, September 30, for a check up and for the extraction of diseased teeth, and blood studies showed no abnormalities. The platelet count was 290,000, bleeding time three minutes, clotting time five and one-half minutes; clot retraction was complete in four hours. The tourniquet test was again negative. Two teeth were extracted with no more than the ordinary amount of bleeding.

The changes in the serum calcium and phosphorus determinations are given in the accompanying chart. The general parallelism between the calcium and the phosphorus curves in both cases is striking. The levels of both calcium and phosphorus rise with the administration of parathyroid extract and fall promptly when the latter is withdrawn. Striking also, and worthy of emphasis, is the sharp fall in the calcium level after the parathyroid extract was stopped.

As stated in the case previously reported, on admission the bleeding time determination was not concluded after two hours of observation, but on the second day of parathyroid treatment the bleeding time fell to five minutes and ten seconds. The platelet count varied between 30,000 and 50,000, but with the administration of parathyroid extract the count steadily rose until at the conclusion of treatment it was 90,000 and three days later 110,000.

In this case the manifestations were somewhat different. On admission the bleeding time was three minutes, but there was no clot retraction. Three days later the bleeding time was six minutes, the next day forty minutes, subsequently one-half hour, and two days before parathyroid extract was begun the bleeding time determination was not concluded after two hours and there was no clot retraction. The prothrombin time soon after admission was ten minutes. After parathyroid treatment was concluded the bleeding time was fifteen minutes and a few days later four and one-quarter minutes, with complete retraction of the clot in twenty-four hours. Subsequently frequent determinations of the bleeding time revealed it to be normal. On admission the platelet count was 70,000, four days later 100,000, the next day 40,000, and then it varied between 30,000 and 60,000 for a little over a month, throughout the entire time that moccasin snake venom was being used. Thirteen days after parathyroid extract was stopped, the platelet count was 185,000.

2. Peck, S. M., and Rosenthal, Nathan: Effect of Moccasin Snake Venom (Ancistrodon Piscivorus) in Hemorrhagic Conditions, J. A. M. A. **104**: 1066 (March 30) 1935.

Two cases obviously are not sufficient to establish any form of treatment, especially when neither case is well controlled. The striking results, however, are very suggestive, and it would seem that the treatment of thrombocytopenic purpura by the induction of artificial hypercalcemia by the use of large doses of parathyroid extract is at least worthy of trial. As compared with other forms of treatment, one would seem to have nothing to lose. On the assumption that the apparent cures were obtained as the result of the treatment administered, no explanation is apparent to account for the results.

SUMMARY AND CONCLUSIONS

1. A second case of acute hypercalcemia produced by intentional overdosage with parathyroid extract occurred in a boy with thrombocytopenic purpura.

2. Toxic symptoms occurring in man are similar to those reported by many workers as occurring in animals with experimental hypercalcemia.

3. The earliest symptom is vomiting. This is shortly followed by weakness, apathy and lethargy.

4. Both patients, once hypercalcemia was established, presented definite objective changes in the blood (bleeding time, clotting time, clot retraction, platelet count) as well as clinical cure.

5. A cause and effect relationship between the hypercalcemia and the apparent cures is suggested, although there appear to be no sound theoretical grounds for such a conclusion.

6. Calcium gluconate was used to protect the bones from the withdrawal of calcium from them into the blood.

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COUNTY-WIDE USE OF IMMUNE GLOBULIN IN THE MODIFICATION AND PREVENTION OF MEASLES

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The rich field of epidemiologic research in private and particularly rural practice has been pointed out by Milton J. Rosenau and others as a source of medical information hitherto undeveloped. The reasons for this are chiefly administrative. Individual series of any one practitioner are too small to be significant. The collecting and confirming of data from any group of physicians is time consuming and the establishing of a uniform system that is essential to comparable facts and figures is difficult in so individualistic a profession.

In the face of a predicted epidemic of measles of unusual proportion, the Hillsdale County Medical Society met the problem in a manner so effective and so fraught with possibilities for future epidemiologic research that the record of its procedures, as well as the record of its conclusions, seems worthy of publication.

For a long time, prevention and modification of measles in persons who have been exposed has been practiced by various seral methods with varying degrees of success.[1] It is beyond doubt a good pediatric and preventive procedure to attempt to modify or prevent measles in an exposed infant or child. The only question is Through what medium shall the immune antibody be given?

Health departments have for years been advising administration of whole blood.[2] Such programs used by the medical profession at large have proved a failure. The chief reason apparently is that withdrawal of 20 cc. of blood looks like a major operation to most people. The injection of 20 cc. is "cruel." Many of the medical profession itself share this point of view. Further, the antibody is most indefinite and therefore "controlled modification" is difficult. The public is "serum conscious" and has not been generally educated to take or give whole blood.

Immune serum or convalescent serum has proved excellent but is expensive and in some areas difficult to procure in sufficient quantity for wholesale procedures. In a rural area the importance of conducting a "wholesale" procedure with as few as possible limiting and qualifying factors cannot be overemphasized.

Immune globulin[3] is only another of the vehicles to carry the immune substance or antibody. It has the advantage of being a waste product, and from 3 to 5 cc. of the extract, used by us, seems to be the equivalent of 10 cc. of immune serum or 20 cc. of adult blood.

The use of immune globulin in modification and prevention of measles is of recent origin.[4] Dr. Charles McKhann has used it effectively in the Children's Hospital in Boston. In 1,258 cases in which various preparations of immune globulin were administered, 95 per cent showed a prevention or modification of the disease and 5 per cent failure.[5] Through the kindness of Dr. McKhann, associate professor of pediatrics at Harvard Medical School, and Dr. Robinson, director of Public Health Laboratories of Massachusetts, we have received lots for both intramuscular and oral administration for use in private practice in the country.

It has long been observed that the results obtained by individuals and institutions could not be duplicated in private practice. A careful study of home and hospital cases of measles made by Karelitz and Schick[6] corroborates and explains this observation.

The Hillsdale County Medical Society took action early in the year endorsing a program of "measles prevention and modification" in the county to determine the value of such a program and the practical value of immune globulin in private practice. No age limitation was put on the program because it was felt that the criticism provoked would not justify the procedure. This decision by the medical society eliminated the possibility of running controls; i. e., one child protected and one not in an exposed family. In such a disease as measles this is of the least possible significance, as the percentage of disease developed in a susceptible population is over 90 per cent to intimate contact.[5]

The immune globulin was distributed, free of charge, to the physicians. In return the physicians kept a careful record of the cases and turned them in to the secretary of the county medical society for analysis and conclusions. From 3 to 5 cc. of immune globulin was given intramuscularly or 12 cc. orally, when possible between the fourth and ninth day after exposure. Most

1. Gallagher, J. R.: Use of Convalescent Measles Serum to Control Measles in a Preparatory School, Am. J. Pub. Health **25**: 595 (May) 1935. Routine Measures for the Prophylaxis of Communicable Diseases, Report of Special Committee on Prophylactic Procedures Against Communicable Diseases, J. Pediat. **6**: 586 (April) 1935.

2. Barrett, C. D.: The Prevention and Modification of Measles, Pub. Health Nursing **24**: 192 (April) 1932.

3. Council on Pharmacy and Chemistry: Immune Globulin (Human): Placimmunin-Squibb, and Immune Globulin (Human)-Lederle, J. A. M. A. **105**: 510 (Aug. 17) 1935. Immune Globulin (Human) and Measles, editorial, ibid. **105**: 514 (Aug. 17) 1935.

4. McKhann, C. F.; Green, Arda, A., and Coady, Harriet: Factors Influencing the Effectiveness of Placental Extract in the Prevention and Modification of Measles, J. Pediat. **6**: 603 (May) 1935.

5. McKhann, C. F., and Coady, Harriet: Immunity in Infants to Infectious Diseases: Placental Antibodies, South. M. J. **27**: 20-24 (Jan.) 1934.

6. Karelitz, Samuel, and Schick, Béla: Epidemiologic Factors in Measles Prophylaxis, J. A. M. A. **104**: 991 (March 23) 1935.

of the cases reported were discussed with the secretary in respect to time of administration and probable exposures, and some of the cases were seen personally by him in consultation.

The program was preceded by newspaper publicity, talks and lectures to parent-teacher associations and to children concerning measles, its importance, its danger and the fact that now the family doctor had a "serum" that he could use which might prevent the disease temporarily or modify the disease and so prevent it for life.

The medical profession in this county was very conservative and critical of results. Because we could not get the immune globulin from the Massachusetts State Biological Laboratories we used, early in December, a commercial preparation of immune globulin. The local reactions were severe and results were only about 50 per cent successful. The criticism was so immediate that the whole matter was dropped until the arrival of McKhann's immune globulin.

The observations of the physicians of this county indicate that, in the 1934-1935 epidemic, most of the cases of measles were of an unusually severe nature, all symptoms being present, so that the effect of the treated cases stood out in bold contrast to those not receiving treatment.

In a rural practice it proved impossible to keep an accurate temperature chart over the period of modification. Frequent calls on all patients immunized were not possible and not necessary according to the physicians, as the results were so clear cut.

No cases were considered as "modified" in which any doubt existed in the mind of the doctor as to the results. It should be noted that one of the most acid tests to which any investigation can be subjected is its use by an unselected critical group of physicians.

Not in every case was modification the objective; occasionally complete prevention was the goal. We therefore considered modification and no measles as success. Only cases of definite exposure and definite history of susceptibility were included in the group in which measles did not develop. No patients under 6 months of age are included in the series.

TABLE 1.—*Results of All Intramuscular Cases*

	Cases	Percentage
No effect	4	5
Modification	42	55
No measles	31	40

TABLE 2.—*Analysis of Casual and Intimate Exposures*

	Casual Cases	Intimate Cases
No effect	2	2
Modification	6	36
No measles	12	19
Totals	20	57

We have divided our data into two groups.

GROUP I

Those receiving the usual intramuscular administration of the serum (seventy-seven cases in all) show 95 per cent success to 5 per cent failure.

It should be noted that, of the four cases of failure, in three cases immune globulin was given so late—the ninth day after exposure or later—that clear-cut modification could not be expected. Three of these patients were older, aged 30, 16 and 11 years, and should have received a larger dosage of immune globulin to obtain a definite modification. In none of the four cases were both the correct time of administration and the correct amount of immune globulin used. If these four cases were then thrown out of the calculation, 100 per cent success could be reported in the remaining seventy-three cases.

TABLE 3.—*Results by Day of Administration of Immune Globulin*

Day	No Effect	Modification	No Measles
Third	0	0	2
Fourth	0	2	6
Fifth	1	21	8
Sixth	0	7	7
Seventh	0	7	4
Eighth	1	4	4
Ninth or over	2	0	0
Totals	4	41	31

TABLE 4.—*Results of All Oral Cases*

	Cases	Percentage
No effect	3	19
Modification	12	75
No measles	1	6

As modification is the object in 90 per cent of the cases, it is interesting to determine the reason for thirty-one cases in which measles did not develop. Seven of these patients were intentionally prevented from having measles by early administration of immune globulin. Allowing 10 per cent of the susceptible cases intimately exposed the privilege of not contracting the disease anyway,[6] we have 10 per cent of fifty-seven persons, or, roughly, six more, making a total of thirteen persons of the thirty-one who would naturally have "no measles." The remaining eighteen we feel can be accounted for partly by a "factor of exposure" hitherto not recognized (table 2). The experience of individual doctors led us early in the year to an assumption that casual exposures needed less serum administered at a later date than did intimate exposures in order to obtain modification.

The work of Karelitz and Schick published in May is in accord with our observations and substantiated our assumption. In 60 per cent of the casual exposures no measles developed while in only 10 per cent (corrected for early administration and infectious rate as previously described) of intimate exposures no measles developed. The 60 per cent of no measles in the casual group might be due to the naturally low infectious rate in casual exposures. It was the definite impression of the physicians, however, that the reduction of dosage and the delaying of administration produced more modification in the casual exposures. Our small group of figures do not substantiate this impression.

Table 3 shows definitely that the most important factor in this series is still the time of administration—the third and fourth days giving probable prevention, the fifth to the eighth day giving modification and the ninth day or later giving failure for clear-cut results.

GROUP II

Those receiving oral administration, 12 cc. of immune globulin in three 4 cc. doses in ice water before breakfast, numbered sixteen cases in all.

It should be noted that the one case of "no measles" in the series could be due, first, to early adequate dosage given on the third day with the purpose of prevention; secondly, to chance on the infectious rate. This was one of three casual exposures, the other two casual exposures in which immune globulin was given at a much later date after exposure obtaining modification.

Of the three patients in whom treatment failed, two were given immune globulin on the ninth day or after. Only once when both dosage and time of administration were correctly given was frank failure observed.

The results arrange themselves very much the same in tables 5 and 6 as in tables 2 and 3 of the previous group.

After intramuscular administration, slight local reaction occurred in thirty-two, or, roughly, one third of the cases. Slight febrile reaction was observed in less than one sixth of the cases. These reactions occurred in from twelve to twenty-four hours and did not last. No severe or general reaction was reported.

The significance of death rates in so small a population is not marked, but it is interesting that in 1930 in Hillsdale County six deaths from measles were recorded with only half as many cases. To date, no deaths have been reported with the largest number of cases the county has ever seen. The significance of this observation is minimized by a fall in the case fatality rate for the whole state from 0.43 in 1932 to 0.23 in the first ten months of 1935.

CONCLUSIONS

Although our series is not large enough to bring definite statistical proof, it seems sufficient to draw certain conclusions:

1. Immune globulin is apparently an effective and practical agent in modification and prevention of measles in the private practice of medicine.

TABLE 5.—*Analysis of Casual and Intimate Exposures*

	Casual Cases	Intimate Cases
No effect	0	3
Modification	2	10
No measles	1	0
Totals	3	13

TABLE 6.—*Results by Day of Administration of Immune Globulin*

Day	No Effect	Modification	No Measles
Third	0	0	1
Fourth	0	2	0
Fifth	0	2	0
Sixth	1	2	0
Seventh	0	3	0
Eighth	0	1	0
Ninth or over	2	2	0
Totals	3	12	1

2. The three chief variables are: amount of exposure, amount of immune globulin, and the time of administration. The last remains the most important single factor, but with intimate exposure in homes, an increased dosage or an earlier dosage is necessary to produce modification. In casual exposure it is wise to prolong the time before administration or lessen the amount of immune globulin to produce modification.

3. A fourth factor may be considered as age. Older patients need more immune globulin and earlier administration to produce the same results.

4. Reactions from intramuscular administration were negligible.

5. Administration by mouth deserves further trial, our few cases giving a percentage of success only slightly lower than intramuscular administration.

6. Epidemiologic research of statistical significance can be carried out by a county medical society through the cooperation of the individual members in a uniform method of procedure and careful recording of separate observations.

7. A county-wide program of measles prevention can be carried on in a manner satisfactory to the best interest of both the medical profession and the community.

8. The death rate from measles in Hillsdale County seems to have been lowered during the period of this county-wide project.

THE VALUE OF THE PROGNOSTIC VENOM REACTION IN THROMBOCYTOPENIC PURPURA

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This paper is a report on the value of moccasin snake venom in cases of essential thrombocytopenic purpura haemorrhagica. The present study is based on observations made on fifty patients, fourteen males and thirty-six females. It may be discussed from the following points: first, the importance of a skin reaction to an intradermal injection of moccasin snake venom as a prognostic measure in the clinical course of this disease; second, the therapeutic efficacy of the venom given subcutaneously, and, third, the use of the skin reaction as a guide for splenectomy.

All the cases studied were typical; some have been followed for as long as five years. They exhibited hemorrhagic tendencies such as purpura, ecchymoses, and bleeding from the mucous membranes. The blood picture showed the characteristic diminution of blood platelets. This was associated with a prolonged bleeding time, a positive reaction to the capillary resistance test, a positive flicker or pinch test, and an absence of clot retraction. In forty-four cases no definite etiologic factor could be determined; these may be regarded as of the idiopathic type. In six instances the ingestion of drugs seemed to be directly responsible. Other types of secondary or symptomatic thrombocytopenic purpura associated with leukemia, subacute bacterial endocarditis, nephritis, malignancy and other conditions will not be discussed.

THE PROGNOSTIC VENOM REACTION

The intradermal skin test known as the prognostic venom reaction consists of the injection intradermally of 0.1 cc. of 1:3,000 standardized moccasin venom, with a control of 0.1 cc. of physiologic solution of sodium chloride. The test is read in one hour. A positive reaction is manifested by capillary rupture with diffusion of blood into the tissues (figs. 1 and 2). The absence of capillary rupture constitutes a negative reaction. Diffusion of blood at the site of injection after

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twelve hours is regarded as a delayed positive reaction. A positive reaction indicates the presence of a purpuric state and a close association with a thrombocytopenia. Clinical improvement is shown by a change from a positive to a negative reaction.

The immediate venom reaction was positive in all cases. The succeeding reactions varied; some patients improved clinically and developed a negative reaction with a gradual return to a normal hematologic status. Others exhibited no improvement either clinically or hematologically and maintained a positive reaction. There were all degrees of variation between these extremes. The following classification is based on our experience with the venom reaction in cases of thrombocytopenic purpura, observed at the Mount Sinai Hospital.

1. Acute cases with recovery (eight cases).
2. Acute cases with fatal termination (two cases).
3. Chronic cases with symptomatic improvement during venom therapy [1] (seventeen cases).
4. Chronic cases without symptomatic improvement during venom therapy (four cases).
5. Recurrent cases (two cases).
6. Chronic cases with splenectomy:
   (*a*) Responding to both venom therapy and splenectomy (three cases).
   (*b*) Not responding to venom therapy but responding to splenectomy (three cases).
   (*c*) Responding neither to venom therapy nor to splenectomy (five cases).

CLINICAL AND LABORATORY OBSERVATIONS

1. *Acute Purpura with Recovery* (table 1).—Eight patients, five males and three females, with ages varying from 20 months to 40 years, were under observation. The initial prognostic venom reaction observed during the active stage of the disease was strongly positive. The course of the disease varied from a few days to four months. The venom reaction gradually became less positive. The negative reaction usually occurred before the clinical signs had entirely disappeared and before the hematologic criteria had returned to normal. All the patients recovered both clinically and hematologically, showing the prognostic value of repeated intradermal venom reactions in this type of case. The following cases are cited as typical examples:

CASE 8 (table 1).—A. P., a white boy, aged 7 years, was seen Oct. 30, 1935, when the child's mother had noticed the sudden development of diffuse ecchymoses on his body and also had found blood on his pillow. The past history was negative, except that one year previously some purpuric spots had developed on the oral mucous membrane and on the chest during a mild attack of influenza. The family history was negative. The patient was normally developed and well nourished. There were ecchymoses over the shoulders and lower extremities, and a few purpuric spots on the lips and on the markedly congested gums.

Laboratory examination, October 30, revealed hemoglobin 94 per cent; red blood cells 5,050,000; white blood cells 7,800; platelets 3,000; differential count: neutrophils (nonsegmented) 12 per cent; neutrophils (segmented) 32 per cent; eosinophils 3 per cent; lymphocytes 47 per cent; plasma cells 2 per cent; monocytes 4 per cent. Coagulation time was five minutes and bleeding time seventeen minutes; the tourniquet test and pinch test were positive; clot retraction was poor in twenty-four hours, and there was a positive reaction to the intradermal venom test.

TABLE 1.—*Acute Purpura Haemorrhagica with Recovery*

Case	Sex	Age	Date	Venom Reaction	Venom Therapy	Course
1. E. K.	♀	3 yrs.	7/31/35 8/ 2/35	Positive Negative	None	Recovered spontaneously both symptomatically and hematologically
2. P. P.	♀	20 mos.	7/ 2/35 7/ 6/35 7/11/35	Markedly positive Less positive Negative	None	Recovered spontaneously
3. H. K.	♂	13 yrs.	3/20/35 3/22/35 3/24/35 4/16/35	Markedly positive Less positive Slightly positive Negative	Six injections: 1 cc. of 1:3,000 venom twice a week for 2 weeks	Recovered
4. M. M.	♂	40 yrs.	11/26/33 12/12/33	Positive Negative	Venom for 2 months as a precautionary measure	Recovered
5. J. S.	♀	25 yrs.	11/22/33 2/14/34	Markedly positive Negative	Eight injections; 1 cc. 1:3,000 twice a week for 4 weeks	Recovered
6. J. L.	♂	23 yrs.	7/ 1/35 7/20/35	Positive Negative	None	Recovered
7. R. F.	♂	2 yrs.	12/19/32 4/10/33	Positive Negative	1 cc. 1:3,000 twice weekly for 8 weeks	Recovered
8. A. P.	♂	7 yrs.	10/30/35 11/ 3/35 11/ 6/35	Positive Slightly positive Negative	0.5 cc. of 1:3,000 once weekly for 3 weeks	Recovered

The patient received three venom injections of 0.5 cc. each at weekly intervals. The ecchymoses began to disappear after the second venom injection, with a gradual change from a positive to a negative venom test. Clinical and hematologic recovery followed rapidly. The improvement was spontaneous. Laboratory examination, November 20, revealed: hemoglobin 82 per cent; red blood cells 4,560,000; white blood cells 8,600; platelets 140,000; differential count: neutrophils (nonsegmented) 5 per cent; neutrophils (segmented) 49 per cent; eosinophils 7 per cent; lymphocytes 31 per cent; monocytes 8 per cent. Coagulation time was five minutes, bleeding time two minutes, and the prognostic venom reaction negative.

CASE 2 (table 1).—P. P., a white girl, aged 20 months, was sent to the Mount Sinai Hospital in the latter part of June 1935 because of the development of diffuse ecchymoses and purpura. The family history was negative, likewise the past history, with the exception that three weeks before admission the child bled profusely from a pinprick. On physical examination there were many ecchymotic areas and purpuric spots over her face, body and extremities, and blood was observed on the edge of both nares. The liver was 2 cm. below the right costal margin; the spleen was just palpable; other physical appearances were normal.

Laboratory examinations, June 30, revealed: hemoglobin 60 per cent; red blood cells 3,300,000; white blood cells 14,000; platelets 30,000; differential count: neutrophils (nonsegmented) 8 per cent; neutrophils (segmented) 30 per cent; lymphocytes 50 per cent; monocytes 12 per cent; bleeding time twenty-three

1. The venom was given therapeutically in doses of 1 cc. of the 1:3,000 dilution, usually twice a week. A complete description of the technic and method of administration has been given in previous publications (Peck and Rosenthal). The venom, as supplied by the Lederle Laboratories, can be used for testing as well as for treatment.

minutes; coagulation time five minutes; tourniquet test positive; no clot retraction; pinch test positive; prognostic venom reaction strongly positive. The Wassermann reaction was negative and stools were positive for guaiac.

Clinical Course: Bleeding from the nose was readily controlled and the child improved rapidly without treatment. The first intradermal venom reaction, July 2, was markedly positive. The second reaction four days later was decidedly less positive; a favorable prognosis was made on the basis of this test. A third venom reaction, July 11, was negative. Two weeks later the purpuric and ecchymotic lesions had faded, the tourniquet test became negative, the bleeding time had decreased to six minutes, and the platelets had risen to 150,000. The patient was observed for four months, during which period no further symptoms developed. Thus the trend of the venom reactions indicated a favorable outcome.

2. *Acute Purpura Haemorrhagica with Fatal Termination.*—This group included two patients, one male and one female, 15 years and 34 years of age. Both patients had severe purpuric manifestations as well as gross hemorrhage from all mucous membranes, including mouth, throat, intestine, kidneys and bronchi. The prognostic venom reactions were so strongly positive that hemorrhagic bullae developed at the site of injection. Both patients died of anemia in spite of many transfusions. In one case there was a superimposed pneumonia.

3. *Chronic Purpura Haemorrhagica with Symptomatic Improvement During Venom Therapy* (table 2).—Seventeen patients, fourteen females and three males, were under observation. The ages varied from 4 to 70 years. The chief complaints in the majority of these individuals were epistaxes, metromenorrhagia, bleeding gums, occasionally bloody stools and urine, ecchymoses and, rarely, cerebral hemorrhage. These chronic cases repeatedly exhibited the characteristic positive venom reaction. Venom therapy was then instituted. This was followed by symptomatic improvement in every instance. The reaction to the intradermal venom test became negative with the symptomatic improvement. Typical examples of this series follow:

TABLE 2.—*Chronic Purpura Haemorrhagica with Symptomatic Improvement*

Case	Sex	Age	Date	Venom Reaction	Venom Therapy	Course
1. C. B.	♀	31 yrs.	7/19/35 8/ 2/35 8/16/35 9/ 6/35 9/13/35 10/ 6/35	Markedly positive Less positive Positive Positive Negative (delayed positive) Negative	4 months	This dosage maintains patient symptom free; no hematologic improvement
2. F. O.	♀	24 yrs.	6/24/35 9/ 5/35 10/16/35 10/18/35	Positive Negative Delayed positive Negative	3 months	Improved symptomatically but not hematologically
3. A. E.	♀	.....	8/ 2/35 9/ 2/35	Negative Negative	6 months	Improved symptomatically but not hematologically
4. K. F.	♀	52 yrs.	2/18/35 3/29/35 10/20/35	Positive Negative Positive	7 months	Improved symptomatically but not hematologically
5. P. W.	♀	42 yrs.	7/31/35 8/ 4/35	Negative Negative	6 months	Maintains symptomatic improvement on venom; no hematologic response
6. I. Y.	♀	70 yrs.	10/16/31 10/ 5/32 7/31/35 10/20/35	Positive Positive Negative Positive	4 years	Maintains symptomatic improvement on venom; no hematologic response
7. D. D.	♂	52 yrs.	10/12/34 8/21/35 10/20/35	Positive Negative Negative	1 year	Maintains symptomatic improvement on venom; no hematologic response
8. L. T.	♀	45 yrs.	5/ 5/35 6/ 3/35 10/ 8/35	Positive Positive Negative	5 months	Maintains symptomatic improvement on venom; no change hematologically
9. I. E.	♀	46 yrs.	2/23/35 2/27/35 7/29/35 10/18/35	Markedly positive Positive Negative Negative	10 months	Symptomatic improvement maintained by venom; no change hematologically
10. H. P.	♀	42 yrs.	8/19/35 10/11/35	Delayed positive Delayed positive	5 months	Symptomatic improvement; no change hematologically
11. I. Q.	♂	4 yrs.	5/21/35 7/12/35 10/20/35	Positive Positive Slightly positive	5 months	Symptomatic improvement but no hematologic change
12. E. S.	♀	13 yrs.	9/23/35 9/30/35 10/ 4/35	Positive Positive Less positive	3 months	Symptomatic improvement but no hematologic change
13. M. M.	♀	8 yrs.	2/ 4/35 6/ 4/35 9/ 4/35	Positive Positive Slightly positive	9 months	Symptomatically improved but not hematologically
14. B. B.	♀	26 yrs.	10/24/34 4/ 5/35 6/20/35 10/25/35	Positive Negative Positive Delayed positive	1 year	Symptomatic improvement maintained by venom; no hematologic change
15. Y. K.	♀	35 yrs.	5/ 2/29 5/ 1/31 10/ 2/31 8/ 4/34 3/ 5/35 10/20/35	Positive Positive Delayed positive Delayed positive Delayed positive Delayed positive	4 years	Symptomatic improvement maintained by venom; no change hematologically
16. D. S.	♂	54 yrs.	8/12/35 8/18/35 10/15/35	Markedly positive Less positive Delayed positive	2 months	Some symptomatic improvement
17. F. M.	♀	25 yrs.	10 10/ 9/35 10/16/35 10/22/35 10/31/35	Positive Delayed positive Delayed positive Delayed positive Delayed positive	2 months	Some improvement

CASE 1 (table 2).—C. B., a white woman, aged 31, admitted to the gynecologic clinic at the Mount Sinai Hospital in January 1934, complained of prolonged menstrual bleeding occur-

ring six weeks after delivery. She was seen again, February 10, with the same complaint. Gynecologic examination was negative.

In July 1935 the patient developed a large spleen, two finger-breadths below the costal margin, anemia and purpura. She was referred to the hematologic clinic and the following blood picture was found: hemoglobin 75 per cent; red blood cells 5,500,000; white blood cells 9,200; platelets 25,000; bleeding time ten minutes; coagulation time eight minutes, and delayed clot retraction. The venom reaction was positive and was repeatedly so August 2 and 16 and September 6. It became a delayed positive reaction September 13 and was negative October 6 and 18.

Clinical Course: Venom therapy was begun August 2. The patient continued to have ecchymoses and purpuric spots from the injections until about the middle of September; after that she began to feel better. Her menses were reduced in amount and duration. Only an occasional nosebleed occurred. The black and blue spots decreased markedly in number and frequency. A clinical response to the venom therapy occurred, evidenced by the reversal of the prognostic venom reaction, even though the blood picture did not improve.

Case 2 (table 2).—F. O., a white woman, aged 24, appeared at the hematologic clinic June 24, 1935, with a history of black and blue spots occurring after the slightest injury. Her menses were prolonged and profuse.

Table 3.—*Chronic Purpura Haemorrhag ica Without Symptomatic Improvement*

Case	Sex	Age	Date	Venom Reaction	Venom Therapy	Course
1. I. P.	♀	48 yrs.	3/27/34 5/ 2/34	Markedly positive Markedly positive	3 months	No improvement; splenectomy suggested
2. M. C.	♂	3 yrs.	6/16/34 9/14/34	Markedly positive Markedly positive	4 months	No improvement; splenectomy suggested
3. S. C.	♀	37 yrs	3/ 2/35 10/20/35	Positive Delayed positive	16 months	No improvement; splenectomy suggested
4. A. D.	♀	20 yrs.	5/31/35 9/ 2/35	Positive Positive	6 months	No improvement; splenectomy suggested

Table 4.—*Chronic Purpura Haemorrhagica (Splenectomies and Splenic Artery Ligations)*

Case	Sex	Age	Date	Prognostic Venom Reaction	Venom Therapy	Course
(a) Responding to Both Venom and Splenectomy						
1. T. G.	♀	45 yrs.	10/ 5/34 12/ 5/34 12/ 7/34 12/10/34 4/ 5/35 8/ 4/35	Positive Delayed positive (Splenectomy) Negative Negative Negative	Improvement symptomatically for 14 months with venom	Clinical recovery since splenectomy
2. E. L.	♀	21 yrs.	3/ 1/33 3/ 4/33 3/ 8/33	Delayed positive (Splenectomy) Negative	Symptomatic improvement with venom 3 months before splenectomy	Clinical recovery since splenectomy
3. B. W.	♀	12 yrs.	9/12/35 9/17/35 10/22/35 12/22/35 12/23/35 12/24/35 12/24/35 12/26/35 12/28/35	Positive Positive Negative Positive Positive (Splenectomy) Negative 3 hours after operation Negative Negative	One month	Improved symptomatically Recurrence of symptoms after discontinuing venom Clinical recovery
(b) Responding to Splenectomy But Refractory to Venom						
4. A. R.	♀	56 yrs.	5/16/35 5/20/35 5/21/35 5/23/35 5/24/35 5/25/35 5/28/35 9/13/35 10/12/35	Markedly positive Markedly positive Markedly positive Markedly positive (Splenectomy) Slightly positive Negative Negative Negative	Three injections of venom; severe reactions	Symptomatic and hematologic improvement since splenectomy
5. A. S.	♂	17 yrs.	12/ 1/32 12/ 8/32 12/17/32 12/23/32	Markedly positive Markedly positive (Splenectomy) Slightly positive	Four injections of venom; severe reactions	Clinical recovery since splenectomy
6. B. G.	♀	29 yrs.	5/17/34 5/18/34 5/19/34 6/ 8/34	Positive Positive (Splenectomy) Delayed positive	Refractory to 3 months of venom therapy	Clinical improvement since splenectomy
(c) Responding Neither to Splenectomy Nor to Venom						
7. J. M.	♀	4½ yrs.	7/21/33 7/26/33 2/20/35	Positive (Splenectomy) Slightly positive	Refractory to 4 months of venom therapy	Little improvement since splenectomy
8. R. LaC.	♀	35 yrs.	3/14/34 2/18/35 3/29/35	Positive Positive Positive	Refractory to 18 months of venom therapy	Little improvement since splenectomy
9. A. B.	♂	43 yrs.	7/24/34 7/28/34 7/30/34	Positive (Splenectomy) Positive	Four injections of venom; severe reactions	Death
10. M. P.	♀	29 yrs.	1/13/33 1/25/33 2/ 5/33 8/12/34 11/11/34	Positive Ligation of splenic artery Splenic artery ligated Splenectomy Positive	No improvement with venom or splenectomy	Death
11. E. D.	♀	21 yrs.	4/10/33 4/24/33 8/18/33	Positive Ligation of splenic artery Positive	Refractory to 6 months of venom therapy	Death

Laboratory examination, June 24, revealed: hemoglobin 75 per cent; red blood cells 4,000,000; white blood cells 6,000; platelets 120,000; tourniquet test positive; bleeding time five minutes; coagulation time seven minutes; venom reaction positive. The test was repeatedly positive June 24, July 5 and 10, and negative July 15, August 16 and 18.

Clinical Course: Venom therapy was started June 28 and has been continued constantly since that time. Purpura or ecchymoses became infrequent and disappeared much more quickly than previously. The menstrual periods became moderate in amount and duration. Hematologically there was no change.

This case again illustrates the symptomatic response of a patient to venom therapy and indicates the increase of capillary resistance to hemorrhage by means of the prognostic venom reaction. Blood taken from this patient August 14 did not contain enough antivenins to neutralize the hemorrhagic action of the titrated venom in a susceptible patient.

TABLE 5.—*Purpura Haemorrhagica Due to Drugs*

Case	Sex	Age	Date	Venom Reaction	Venom Therapy	Course
1. E. D.	♀	58 yrs.	9/ 3/35 9/ 6/35 9/ 9/35 9/12/35 9/14/35	Markedly positive Negative Negative Negative Negative	None	This patient had purpura due to allyl-isopropyl-acetyl-carbamide; immediately recovered when drug was stopped
2. F. G.	♀	48 yrs.	12/10/34 12/21/34 9/16/35 10/20/35	Markedly positive Negative Negative Negative	None	Another purpura due to allyl-isopropyl-acetyl-carbamide; recovered with its removal but when it was given again purpura reappeared
3. M. A.	♀	.....	9/21/35	Negative	None	This patient was recovering hematologically from allyl-isopropyl-acetyl-carbamide when venom test was first done
4. F. P.	♀	55 yrs.	12/31/34 2/ 4/35	Markedly positive Negative	None	Purpura possible due to excessive use of phenobarbital
5. I. I.	♂	55 yrs.	3/28/35 9/18/35	Positive Negative	Treated for 6 months	Purpura occurred every time chrysarobin was applied
6. J. G.	♂	32 yrs.	12/15/35 12/16/35 12/18/35 12/19/35 12/20/35 12/23/35	Positive Markedly positive Delayed positive Negative Negative Negative	None; platelets 25,000 2,000 20,000 40,000 70,000 260,000	Purpura due to allyl-isopropyl-acetyl-carbamide; complete clinical recovery

TABLE 6.—*Diagrammatic Summary: The Prognostic Value of Repeated Intradermal Venom Reactions in Idiopathic Purpura Haemorrhagica*

The positive prognostic venom reactions may

without treatment become	without treatment remain	with response to venom therapy become	without response to venom therapy remain persistently	with splenectomy will become negative	or	with splenectomy will continue to be positive
negative (associated with clinical recovery)	positive (death)	negative (associated with recovery or symptomatic improvement)	positive (unimproved)			
1. Acute purpura haemorrhagica with recovery	2. Acute purpura haemorrhagica (fatal)	3. Chronic purpura haemorrhagica with symptomatic improvement	4. Chronic purpura haemorrhagica without symptomatic improvement	5. Chronic purpura haemorrhagica with response to surgery		6. Chronic purpura haemorrhagica without response to surgery

CASE 9 (table 2).—I. E., a white woman, aged 46, complained of persistent epistaxis and purpura on admission. Twenty-three years before the patient had a right oophorectomy and two and one-half years before a hysterectomy was performed, following which epistaxis and purpura developed. These symptoms gradually became more severe. Local measures to the nose and transfusions on two occasions were of no avail. For six months before admission to the hospital severe epistaxis occurred every ten to fourteen days with daily oozing of blood from the nose. The purpurae would appear during or following the epistaxis. The patient was normally developed and well nourished but rather pale; she sat in bed with constant oozing from the nose. Petechial spots were present on the arms, forearms and abdomen.

Laboratory examination, February 23, revealed: hemoglobin 79 per cent; red blood cells 4,650,000; white blood cells 6,400; platelets 20,000; differential count: neutrophils (nonsegmented) 29 per cent; neutrophils (segmented) 49 per cent; eosinophils 2 per cent; lymphocytes 42 per cent; monocytes 5 per cent. The tourniquet test was positive, bleeding time was ten minutes and coagulation time was five minutes; there was no clot retraction, and the prognostic venom reaction was positive.

Clinical Course: The venom test was consistently and markedly positive on several occasions. Because of this and of the clinical symptoms, venom therapy was instituted. Following several of these injections the epistaxis subsided and there was clinical improvement. The venom reaction became negative one month after the institution of venom therapy. Symptomatically improvement was evident, but no hematologic changes occurred. At no time during the past ten months have the platelets numbered over 40,000. The patient now maintains a constantly negative venom reaction and there is continued clinical improvement with weekly venom injections.

4. *Chronic Purpura Haemorrhagica Without Symptomatic Improvement During Venom Therapy* (table 3).—The four patients in this group, one male and three females, varying in age between 3 years and 48 years,

are examples of chronic thrombocytopenic purpura haemorrhagica that remained refractory to venom therapy. Splenectomy was refused. Repeated prognostic venom reactions were always positive over periods varying from six to sixteen months. These cases will be carefully followed as controls for the splenectomized group.

5. *Recurrent Purpura Haemorrhagica.*—Two patients, both women, aged 32 and 38, had episodes of purpura with all the typical hematologic changes and then completely recovered clinically with a return of normal blood counts. The prognostic venom reaction was positive at the beginning of each recurrence and paralleled the clinical symptoms. These patients received venom therapy during exacerbations of the disease and apparently improved with its use. A typical example follows:

R. P., a white woman, aged 31, has been under observation for five years. The first observed attack of purpura haemorrhagica occurred in 1930. The initial intradermal venom reaction at that time was strongly positive. All the therapeutic venom injections administered during 1930 were given by the intradermal route. She received these injections for one year and showed gradual clinical and hematologic recovery. The patient remained in excellent health for two years and in 1933 became pregnant, with a recurrence of the purpura haemorrhagica. She was advised to have her pregnancy interrupted but refused, and venom therapy was again instituted. Clinical symptoms were well controlled by venom during her pregnancy. The spleen was not palpable, and laboratory examination during the first part of her pregnancy before venom therapy was instituted again revealed platelets 70,000; bleeding time five minutes; clot retraction poor; tourniquet test positive. Venom therapy was continued until the end of her pregnancy. A short time before term the patient improved hematologically and delivered a normal male child.

She remained well until 1935, when she had another recurrence. August 2 the prognostic venom reaction was markedly positive. With resumption of venom therapy clinical improvement occurred, her menstrual periods becoming less prolonged, and the ecchymotic spots gradually disappeared. A prognostic venom reaction September 6 was negative.

The patient then became irregular in her attendance at the clinic and purpuric symptoms again returned, so that on October 4 the prognostic venom reaction was again positive. The injection of larger doses of venom was followed by rapid improvement. The venom reaction on October 20 was again negative.

6. *Chronic Purpura Haemorrhagica (Splenectomies and Splenic Artery Ligations)* (table 4).—The importance of the prognostic venom reaction was most evident in this particular group. Eleven cases were observed. The ages varied from 4½ to 56 years. In this group seven females and two males were splenectomized. In addition there was one female who had splenic artery ligation and another female who had splenic artery ligation followed by splenectomy.

By means of the prognostic venom reaction they could be classified as follows:

(*a*) Responding to venom therapy and splenectomy.
(*b*) Not responding to venom therapy but to splenectomy.
(*c*) Not responding to venom therapy or to splenectomy.

Splenectomy is definitely indicated when patients fail to respond to intensive treatment with snake venom and continue to give a positive intracutaneous venom reaction. The operation may prove beneficial in some of these cases. The postoperative progress of such cases can be accurately predicted by the immediate venom test. A negative reaction after operation has a good prognostic import. In fact, this may precede any noticeable symptomatic or hematologic improvement. However, persistence of a positive venom reaction after splenectomy indicates that the operation will not prove beneficial to the patient.

Splenectomy can also be offered as an alternative measure to patients manifesting a clinical response to venom therapeutically but who object to a future of continued venom injections. Such patients in our small series experienced both symptomatic and hematologic improvement from the operation.

(*a*) Typical cases responding to both venom and splenectomy follow:

CASE 2 (table 4).—E. L., a white woman, aged 21, entering the Mount Sinai Hospital, March 1, 1933, complained chiefly of metrorrhagia and purpuric manifestations over a period of seven months. The past and the family history were both negative. During November and January preceding the patient's admission, the menorrhagia was controlled by snake venom therapy. The patient decided to have her spleen removed in order to avoid continuous injections of venom.

Laboratory examination at that time revealed: hemoglobin 67 per cent; red blood cells 3,600,000; white blood cells 4,500; platelets 50,000; differential count: neutrophils (nonsegmented) 7 per cent; neutrophils (segmented) 49 per cent; eosinophils 1 per cent; lymphocytes 41 per cent; monocytes 2 per cent. Bleeding time was six minutes; coagulation time ten minutes; tourniquet test positive; no clot retraction, and a positive prognostic venom reaction. A spleen about twice normal size was removed on March 14. The patient had an uneventful postoperative course and has remained well since. Platelets rose to 500,000 following splenectomy and then gradually returned to normal.

CASE 3 (table 4).—B. W., a white girl, aged 12 years, entering the Mount Sinai Hospital, Sept. 11, 1935, complained chiefly of severe menstrual bleeding. The first menstrual episode was so severe that a transfusion was required. Examination of the blood at that time revealed hemoglobin 60 per cent; red blood cells 3,910,000; white blood cells 9,150; platelets 16,000; differential count: neutrophils (segmented) 47 per cent; eosinophils 10 per cent; lymphocytes 35 per cent; monocytes 5 per cent; reticulocytes 4 per cent; coagulation time thirteen minutes; bleeding time eighteen minutes; positive tourniquet test, and a positive pinch test and prognostic venom reaction. The menorrhagia stopped and the patient was discharged, September 19. Snake venom therapy was then instituted and given twice a week. The second menstrual period was normal. Since the prognostic venom reaction became negative the venom therapy was reduced to one injection of 1 cc. once a week. The third menstrual period was profuse and nosebleeds and bloody stools developed, and she was was again hospitalized, December 22. The blood studies were nearly identical with those during the first admission. The prognostic venom reaction was markedly positive again.

The physical examination was negative. Because of the recurrence of bleeding symptoms a splenectomy was advised, since the patient refused further venom therapy. Splenectomy was performed, December 24. December 26 the platelet count was 460,000; December 27, 830,000; December 28, 1,250,000; Jan. 2, 1936; 1,200,000; January 3, 700,000, and January 6, 410,000. Except for a slight bronchopneumonia there was an uneventful recovery.

On the morning of the operation the prognostic venom reaction was positive, and three hours after splenectomy the venom test was negative. At this time the tourniquet test was still positive and there was no hematologic improvement.

(*b*) The following is a typical example of a case not responding to venom therapy but to splenectomy:

CASE 4 (table 4).—A. R., a white woman, aged 56, entered Mount Sinai Hospital, May 6, 1935, with a history of having had purpura haemorrhagica for twenty-one years. Her chief complaints on admission were marked hematemesis, bloody diarrhea, pallor, marked weakness, palpitation and dyspnea. The family history and past history were negative. Twenty-two years previously, because of marked metrorrhagia, the patient

was curetted without improvement. Nineteen years prior to admission the patient had a hysterectomy. Since then the patient had frequent bleeding from all orifices and had been practically an invalid. Because of a recent severe loss of blood, the patient came to the hospital for a series of transfusions. As she did not respond favorably to venom therapy a splenectomy was advised. The patient was well developed but extremely pale, with generalized purpura and ecchymoses. The gums were markedly spongy, infected and bleeding. The spleen and liver were not felt.

Laboratory examination on admission revealed: hemoglobin 24 per cent; red blood cells 2,100,000; white blood cells 8,300; platelets 30,000; neutrophils 68 per cent; lymphocytes 22 per cent; monocytes 10 per cent; bleeding time eleven minutes; coagulation time eight minutes; tourniquet test positive; no clot retraction; prognostic venom reaction positive. The patient was given three transfusions before a splenectomy was done and withstood the operation well. The postoperative course was uneventful except for the aspiration of 500 cc. of sanguineous fluid from the left pleural cavity. Following the splenectomy the platelets never rose above 60,000 during her stay at the hospital. The venom test became negative the day after operation, and she has maintained a negative test ever since. The patient has been observed for ten months since she left the hospital. Blood studies at the end of the ten months' period showed a negative tourniquet test, a bleeding time of three minutes, and 150,000 platelets. She is no longer an invalid, being able to do her housework for the first time in twenty-two years.

(c) The following case is a typical example of a patient responding neither to venom therapy nor to splenectomy:

CASE 7 (table 4).—J. M., a white girl, aged 4½ years, admitted to Mount Sinai Hospital, July 1, 1933, complained of nosebleeds and ecchymoses for a period of eighteen months. The family history was negative; the past history revealed that since birth the patient had developed large ecchymoses from slight trauma. Sixteen months before admission she had a tonsillectomy and lost a great amount of blood. Since then she had had constant oozing from the mouth, this being associated with tarry stools. The child was admitted to the hospital for a splenectomy, because she was refractory to venom therapy. She was well nourished. There was a generalized purpuric eruption, including the pharyngeal mucous membranes.

Laboratory examination on admission revealed: hemoglobin 45 per cent; red blood cells 2,260,000; white blood cells 43,000; platelets 40,000; differential count: neutrophils (nonsegmented) 3 per cent; neutrophils (segmented) 30 per cent; lymphocytes 66 per cent; monocytes 1 per cent; bleeding time twelve minutes; coagulation time six minutes; tourniquet test positive; no clot retraction; venom test positive. A small spleen and a very small accessory spleen were removed. The postoperative course was attended by several complications: a small hematoma immediately appeared at the lower angle of the wound, blood oozed from the gums and mouth, and a large ecchymotic area appeared on the thigh. Three weeks later gross hematuria occurred and persisted for several days, associated with a rise in temperature to 103 F. This complication gradually subsided and the patient left the hospital eight weeks later without noticeable bleeding tendencies. This case has been followed for more than two years. Clinically the patient has made only slight improvement. She still bleeds from the mouth and gums occasionally and she still gets ecchymoses on trauma. Her prolonged bleeding time is maintained and the platelets have never gone above 50,000 since the splenectomy. The venom test has always been positive, and the patient is still refractory to venom therapy.

7. Thrombocytopenic Purpura Haemorrhagica Due to Drugs (table 5).—There are many drugs which may cause thrombocytopenic purpura haemorrhagica, such as neoarsphenamine, arsenic, quinine, chrysarobin, benzene, allyl-isopropyl-acetyl-carbamide and gold. The six cases in this group were selected to show that prognostic venom reactions may be a guide for determining the immediate prognosis of a drug purpura. Four of the cases occurred in females and two in males. All the patients were over 35 years of age and they all presented a picture of acute purpura haemorrhagica. Recovery was remarkably rapid when the offending drug was withdrawn. It is of interest to note that case 5 presented a striking specificity of this idiosyncrasy to chrysarobin, as the purpura recurred every time the chrysarobin was applied for psoriasis. Because of the chronic course this patient was treated with venom for a short period. Prognostic venom reactions were always positive during the active manifestations of the syndrome in all these patients. A typical example follows:

CASE 1 (table 5).—E. D., a white woman, aged 63, admitted to the Mount Sinai Hospital Oct. 1, 1935, complained of diffuse ecchymoses and bleeding from the nose, gums and bladder. The family history was negative, and the past history was

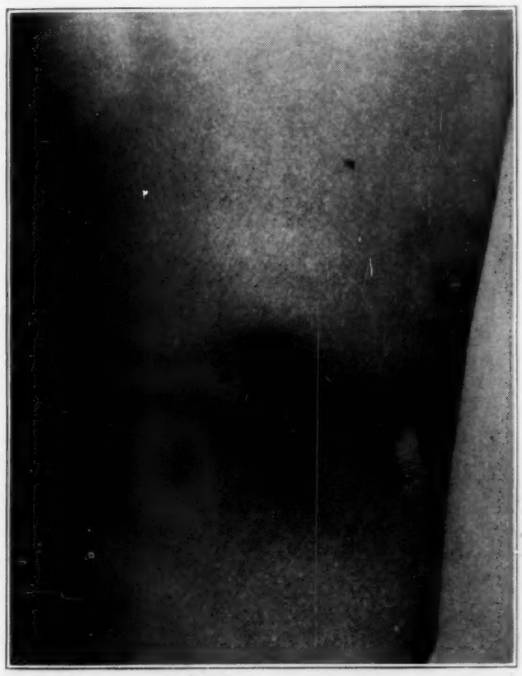

Fig. 1 (case 8, table 1).—Positive venom test within thirty minutes after intradermal injection of one unit of moccasin venom in 7 year old boy with acute thrombocytopenic purpura.

negative except for ingestion of a proprietary preparation containing allyl-isopropyl-acetyl-carbamide. The patient had been taking this drug for a month previous to admission because of restlessness due to the death of her husband. She had been in her usual state of health until fourteen days previous to admission, when she noticed the development of a number of bruises. She began to bleed from the nose, then the gums, and when blood appeared in the urine she became frightened and came to the hospital. Physical examination was negative except for diffuse purpura, ecchymoses and petechiae scattered in the mucous membranes and in the skin over the entire body.

Laboratory examination, October 3, revealed: hemoglobin 76 per cent; red blood cells 5,000,000; white blood cells 20,000; platelets 20,000; differential count: neutrophils (nonsegmented) 16 per cent; neutrophils (segmented) 62 per cent; basophils 1 per cent; lymphocytes 18 per cent; monocytes 3 per cent. Bleeding time was twenty minutes, the tourniquet test was positive, there was no clot retraction, and the venom test was positive. October 6 the venom reaction to this test was less positive, and it was negative on October 9. The laboratory results, October 9, were hemoglobin 65 per cent; red blood cells 3,700,000; white blood cells 13,500; platelets 260,000;

differential count: neutrophils (nonsegmented) 3 per cent; neutrophils (segmented) 71 per cent; basophils 1 per cent, lymphocytes 18 per cent; monocytes 7 per cent.

COMMENT

Snake venom did not find a place in rational therapeutics until recently. Rattlesnake venom had previously been advocated in epilepsy, but its value is questionable.[1a] Homeopathy has long included[2] the venom of the Crotalinae (Lachesis) in its pharmacopeia for various types of bleeding; it is given orally in homeopathic doses, and experimental evidence seems to indicate that it is easily destroyed by the digestive juices. More recently Monaelesser[3] and others have advocated cobra venom by injection for the control of intractable pain in carcinoma. It has been found that the venom of the Russell viper,[4] the tiger snake,[5] and

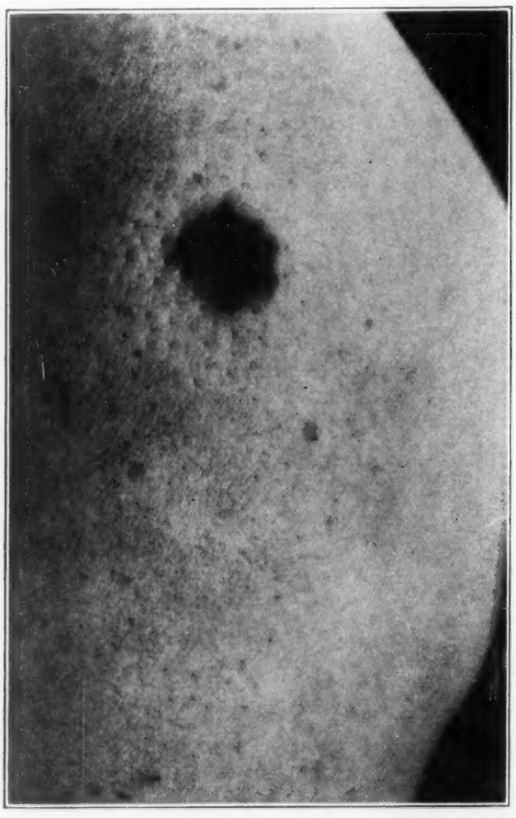

Fig. 2 (case 8, table 4).—R. LaC., a woman, aged 35, with chronic thrombocytopenic purpura, not responding to splenectomy or to venom therapy. A positive venom test one hour after the injection of one unit of moccasin venom intradermally.

Bothrops atrox[6] hasten the coagulation of blood in vitro, and they have been recommended for local hemostasis.

Moccasin venom, which we have used in the present study, has earned for itself an important place in modern therapeutics. Its parenteral use has proved to be of definite benefit in various types of bleeding such as nasal and uterine, and conditions such as Osler's disease and various types of purpura haemorrhagica.[7] The use of moccasin venom in the treatment of hemorrhage was suggested by the observation that certain venoms are capable of producing a refractory state to experimental purpura, known as the Shwartzman phenomenon.[8] This observation led Peck to use the intradermal injection of moccasin venom as a measure of gaging capillary resistance.

Because of the vast difference in the amounts of neurotoxins, hemolysins and hemorrhagins of various venoms and even of the same venom, Witebsky, Peck and Neter[9] devised a means of standardizing the hemorrhagin content of moccasin venom by using the chick embryo. The most reliable standardization for therapeutic use is clinical trial in suitable cases. However, a standardized moccasin venom, if kept in the icebox, will retain its hemorrhagin content for a number of months.

Standardized venom, when given intradermally, will cause the development of an ecchymotic area in untreated thrombocytopenic purpura haemorrhagica without close relationship to the platelet count. It is well known that the initial symptoms of this disease may appear when the platelets number 5,000 or as high as 100,000. The severity of the disease does not depend on the number of platelets — the so-called threshold value—but more likely on the fundamental principles, such as a functional qualitative capacity of the megalokaryocytes and platelets, and the integrity of the capillaries.

A positive reaction to the venom test may consist of a small capillary rupture only 0.5 cm. in diameter, or it may involve the skin far beyond the injection site. A delayed reaction is a diffuse ecchymosis developing twelve hours or more after injection. This type of reaction is not reliable for diagnostic or prognostic purposes, since some apparently healthy individuals give such a reaction. The negative test shows no hemorrhagic reaction.

One must not depend on a single reaction for prognosis; a single test is an indication of a purpuric state or the existence of a local or generalized capillary fragility. The importance of the test prognostically lies in observing successive injections. Thus, one can observe the persistence and increase of a positive reaction, or the reversal of a positive to a negative reaction, and note the trend of the disease. This is possible because it has been determined that not enough antivenins are formed in the circulating blood to influence the test.

A reversal of a positive reaction to a negative foretells recovery or improvement. This occurred in eight cases of thrombocytopenic purpura haemorrhagica, and in five cases of purpura due to drugs. In two patients with purpura haemorrhagica with fatal termination the prognostic venom reaction was repeatedly intensely

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positive. Thirty-four chronic cases were observed. All these chronic cases had been subjected to subcutaneous venom therapy in adequate dosage (the minimum amount given was 1 cc. of the 1:3,000 standardized moccasin venom given twice a week). The twenty-two patients with a reversal from a positive to a negative reaction in this group (64 per cent) all showed clinical improvement with the venom therapy. However, hematologic improvement did not parallel the symptomatic improvement in such treated cases.

The interval between injections was increased in some of these patients in an effort to determine the minimum maintenance dosage. Occasionally venom injections were discontinued for several months, with the result that the effect of the treatment gradually diminished. This was usually followed by a recurrence of symptoms and a reappearance of a positive reaction to the venom test. Thus, the test indicated the need for the resumption of therapy or more frequent injections.

The patients who were refractory to subcutaneous venom therapy were advised to have a splenectomy. Eleven cases in which splenectomy had been done were studied. Splenectomy was done in three cases that had responded to subcutaneous injections of venom and presented a reversal of the venom test. Recovery occurred in these cases both clinically and hematologically following the operation.

The observation of intracutaneous venom tests and of cases treated with venom proved to be of great importance in cases which demanded more radical treatment, such as splenectomy. Three patients who had responded favorably to subcutaneous injections of venom and had a reversal of the venom test were splenectomized. They recovered both clinically and hematologically following the operation.

Patients who were refractory to subcutaneous venom therapy and showed a persistently positive venom reaction were advised to have splenectomy. Eight patients in this category were splenectomized. Clinical and hematologic recovery occurred in one case. There was symptomatic recovery in two cases and in all three cases there was a reversal of the positive venom test to negative following the operation.

In three cases splenectomy failed to control the purpuric condition. In each case the venom reaction continued to be positive and death followed shortly after the operation.

Although there was postoperative recovery in the tenth case, purpuric manifestations continued and the patient failed to respond to continued venom therapy. The intracutaneous venom reaction also remained positive. In the eleventh case splenectomy was performed several years ago, prior to the use of venom for therapeutic purposes. Clinically the operation proved unsuccessful. This patient continues to have positive venom reactions.

In the treatment of purpura haemorrhagica it is of great importance to test and treat the patient with snake venom, either for the control of the condition or to predict the outcome after splenectomy.

SUMMARY

1. An intradermal moccasin snake venom test has been used as a prognostic measure in essential thrombocytopenic purpura haemorrhagica.

2. Persistence of a positive reaction to successive tests, or a reversal to a negative reaction, is of value in determining the trend of the purpuric state.

3. Subcutaneous injections of moccasin snake venom have been employed as a therapeutic measure in chronic purpura haemorrhagica. It apparently has been of value in twenty-two of the thirty-four cases in which it has been used.

4. The effect of subcutaneous venom injections and the trend of the intracutaneous venom test are important for the indication and prognosis of splenectomy.

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THE INJECTION TREATMENT OF REDUCIBLE HERNIA

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The high incidence of recurrence [1] still found in surgical treatment of hernia led us to investigate the injection method. This method has fallen into disrepute, largely because of the widespread use of proprietary nostrums of uncertain content. There is, nevertheless, a sufficient amount of evidence concerning the possible action of some substances to warrant further investigation.

HISTORICAL

Apparently Velpeau of Paris [2] must be given the credit for being the first surgeon to use irritants with the intention of producing a proliferation of new connective tissue to obliterate the inguinal canal. Sometime after 1844 Pancoast [3] reported to the profession his results in thirteen cases of hernia in which he used a cannula through which he introduced iodine and in other cases tincture of cantharides into the inguinal canal. In 1842 Heaton [4] in Boston had used tincture of iodine, using a crude type of instrument, and published a report on his method in 1843. Owing to an unfortunate controversy with the medical profession at that time his work did not receive much attention in this country, and it was not until the year 1877 that he published a book in which he described his treatment. Before that time he had been given a warm reception in Europe, and his work was accepted as a real contribution to surgical advance. This probably explains why the injection method first gained so many adherents in Europe. From the time of Heaton's publication (1877), the flow of literature on hernia nonoperatively corrected began to swell perceptibly, notably in the writings of Schwalbe,[5] Janney,[6] Warren,[7] Lannelongue [8] and Ripley.[9] In 1927 Mayer [10] of Detroit published his reports covering twenty-eight years of experience with the use of zinc acetate solu-

From the Department of Surgery, Northwestern University Medical School.

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tion. This work incited new interest in the subject, since he declared himself as having less than a 2 per cent recurrence, and it was not long before others began adding their experiences to the literature on the subject. The more recent work of such men as Wyss,[11] Hall,[12] Wollermann,[13] Jameson,[14] Wolfe,[15] Bratrud,[16] Rice,[17] Quillin[18] and Fowler[19] has given a new impetus to further clinical and experimental research.

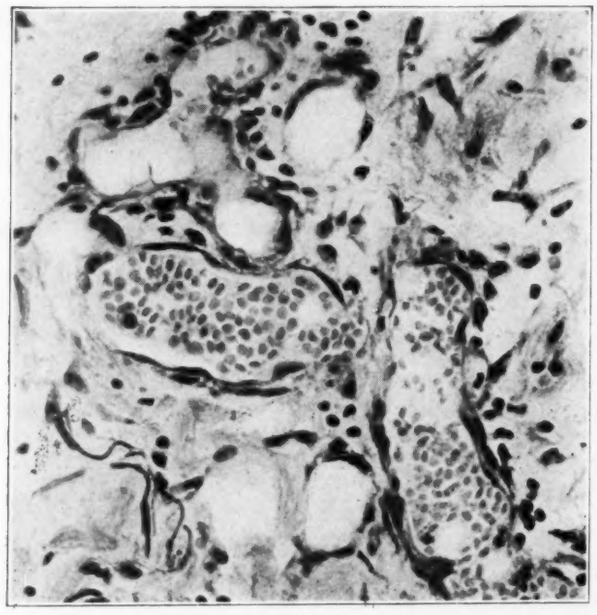

Fig. 1.—Section from tissue one week after injection with solution C, showing proliferating fibroblasts and remnants of lymphocytic infiltration under high power (× 390).

The work reported here was begun in March 1934. At the same time an opportunity was afforded in the experimental surgical laboratory to determine the value of the use of various irritant solutions in the inguinal canal, in the hope of developing solutions that were felt to be most effective in stimulating the production of connective tissue of a permanent nature, without necrosis or abscess formation.

EXPERIMENTAL

With the use of dogs we first attempted to see what results would occur when different irritants that we planned to use clinically were injected into the general circulation. Both blood pressure and respiratory graphs were made. These graphs showed that a decided drop in blood pressure occurred at first, followed by a compensatory increase, the normal blood pressure being regained after about thirty to forty minutes. The respiratory rate was accelerated, sometimes as high as 40 per minute. In no case did the animal die. For these tests we used strengths of solutions sometimes as great as twice that which we planned to use clinically. We then proceeded to study the tissue changes that occur when irritants are injected into muscle and fascia of the inguinal canals of dogs.

Microscopic study made of stained sections of tissue showed that as early as eight hours after an injection of a solution containing 50 per cent phenol in alcohol, in a dosage of from 3 to 10 minims (0.2 to 0.6 cc.) there is a marked exudation of polymorphonuclear and round cells. At one week a section taken from the same area showed many histiocytes. Fine fibroblasts began to make their appearance (fig. 1). Tissue sections studied microscopically, taken from an area that had been injected two weeks previously, showed dense bundles of fibrous tissue. This fibrous tissue becomes more dense in sections studied after longer intervals (from two to four weeks) and becomes adult, mature connective tissue after from six to eight weeks (figs. 2, 3 and 4). These results are similar to those described by Rice,[17] who had used the same irritant. We also found evidence of fat decomposition in the presence of macrophages filled with lipoid granules and the presence of foreign body giant cells. The latter was more constantly found in tissue sections that had been injected with tannic acid. Our experimental work indicates that no matter which of these irritants are used (i. e., alcohol, iodine, tannic acid or phenol, in proportional strength), the same relative reaction occurs, and we feel that permanent fibrous tissue is not developed any more by one irritant than by another. That "layers" of connective tissue can be produced in the inguinal canal after irritants are injected at intervals of two to three days is well demonstrated in our microscopic studies (fig. 3). Old fibrous tissue superimposed on round cell infiltration and new fibroblasts demonstrated to us the possibility of slough of mature connective tissue when the irritant is given in too large doses or given too frequently. We have also noted the absorption of a hard fibrotic induration in the inguinal canal of the dog, occurring as late as six months after all irritants had been discontinued.

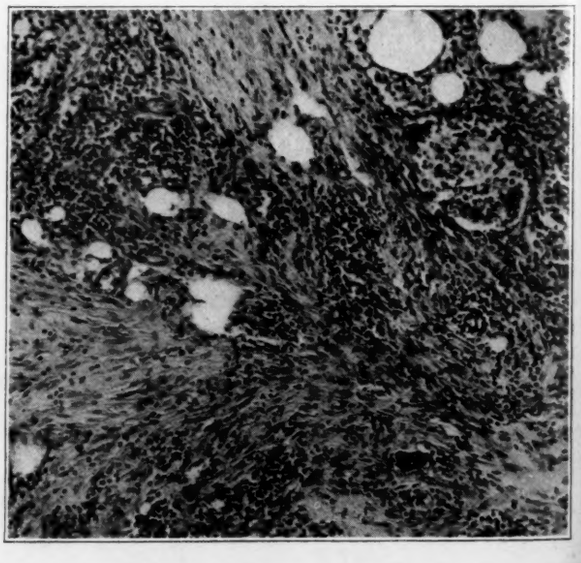

Fig. 2.—Granulation tissue and maturing fibrous scar after two weeks with solution C under low power (× 115).

CLINICAL PROCEDURE

Three different solutions labeled solutions A, B and C were used. Solution A contained tannic acid 0.25 Gm., benzyl alcohol 3 cc., thymol 0.5 Gm., grain alcohol

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100 cc., tincture of thuja 4 cc. Solution B contained tannic acid 0.5 Gm., benzyl alcohol 3 cc., thymol 0.5 Gm., and grain alcohol 100 cc. Solution C contained phenol 15 cc., alcohol 7.5 cc., tincture of thuja 7.5 cc. Solutions A and B were given in 5 cc. doses biweekly and solution C was given in doses ranging from 4 to 8 minims (0.26 to 0.52 cc.). The introduction of the irritants in these large doses directly within the peritoneal cavity of the dog was painful for approximately one hour, but no deaths occurred. In sections of the peritoneum removed after from four to five days we noted areas of necrosis with beginning healing. Apparently the exudation produced about the irritant by the peritoneum produces enough protection to limit any extended amount of necrosis of the tissues. We noted no embolic phenomena in any of the animals after numerous injections within both the inguinal canal and the abdominal cavity.

CLINICAL HAZARDS

In the review of the literature dealing with the subject of injection treatment of hernia one may gain the impression that the method is practically without complications or hazards. We do not feel that such an impression should go unchallenged. The publication of Goldhahn [20] and his reference therein to the evils of the widespread and unlimited use of injections in all types of cases must make an impression on any one who feels that the method is worth while. But it appears that the cases cited (Goldhahn) must have been complicated by abdominal viscera present within the canal before the injections were made. He does not state whether any truss was used. In other words, either the hernia was not reduced beforehand or the operator failed to recognize an unreduced hernia. The latter problem can more often than not occur. The possibility of forming adhesions within the peritoneal cavity with severe irritants, once the sac has been punctured, may be safely dismissed. Our work in dogs has given us ample proof that such an irritant in small amounts is practically always absorbed. Transfixing the spermatic cord must be considered when one is not absolutely sure of the position of the needle. One of us has seen this done on a patient outside our clinic. The result was severe swelling and pain in the testicle, associated with cramps in the lower part of the abdomen, which lasted for several days and then gradually subsided.

SELECTION OF CASES

The series of cases here presented was selected in the following manner: Hernias associated with undescended testicle, sliding hernias and irreducible hernias were ruled out. No attempt was made to treat patients suffering from the following conditions involving the general health: marked obesity, hemophilia, syphilis, neurosis, toxic goiter; patients suffering from chronic severe coughs, and obviously all cases requiring surgery for the associated conditions, such as abdominal tumors, enlarged prostate, large varicocele or hydrocele. It was also a rule that no patient was treated who was previously not relieved of all symptoms by wearing a truss. All patients were carefully examined and the size of the defect in the abdominal wall was noted, as well as the size of the hernia. Also any atrophy of either testicle was carefully noted. The latter was carefully carried out because critics of this treatment have stated at times that the method was prone to produce testicular atrophy. In our series we found that about 8 per cent of our patients suffered from this condition. It is imperative that a truss be worn from one to two weeks before treatment is started, first, to prevent the treatment being interrupted by local irritation of the skin, and, secondly, to make sure that the hernia can be held reduced at all times. After considerable experimentation with different types of trusses it was found that the spring type with anterior and posterior pressure was the most efficient. This applied to all types of hernia except the umbilical, in which it was necessary to use the circular type to maintain the pad in its proper position. The proper fitting of the truss and its proper adjustment from time to time is one of the most important prerequisites to this treatment. In those cases in which difficulty was experienced in curing the hernia it was invariably found that the truss was at fault in not holding the hernia continuously reduced.

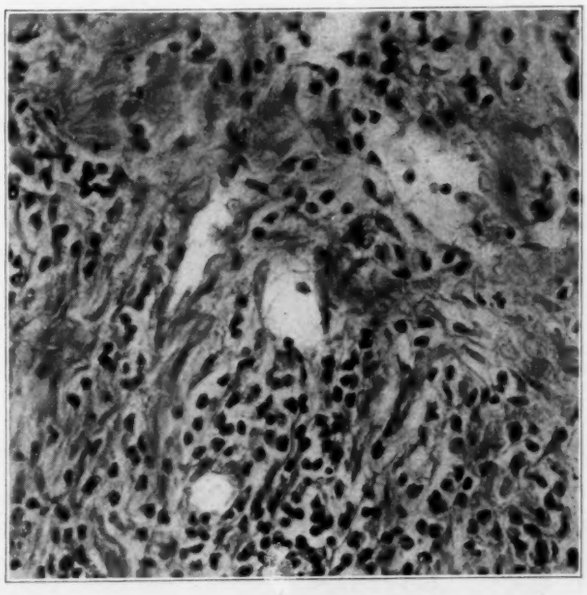

Fig. 3.—High power field of area of injection after three weeks; maturing fibrocytes and remnants of lymphocytic infiltration.

The truss was worn day and night for from one to two weeks before treatment was started and for a varying period after treatment was instituted of from two to four weeks. The truss was then removed only at night. It was then worn during the day until we were satisfied that the hernia was cured. It is far better to wear the truss unnecessarily long than to remove it too early. The patients were instructed to carry on their normal activities while under treatment, many of them doing heavy work, but were cautioned to be sure that the pad was in proper position at all times.

The solutions used in this series were those referred to as solutions B and C. The dosages used were: solution B, from 1 to 3 cc.; solution C, from 4 to 8 minims. With the former solution a preliminary injection of 1 cc. of a 2 per cent procaine hydrochloride solution was first introduced. Then, after a few moments, the needle, which was left in situ, was attached to the syringe and the solution was slowly injected. This technic eliminates any pain. The minimum dosage of both solutions was used in umbilical,

20. Goldhahn, Richard: Ueber schwere Schädigungen nach Bruchbehandlung mittels Alkoholinjecktionen, Klin. Wchnschr. **9**: 1447 (Aug. 2), 1968 (Oct. 18) 1930; **10**: 72 (Jan. 10) 1931.

femoral and incisional hernias as well as about the internal ring in inguinal hernia. The larger dose was used about the external ring and Hesselbach's triangle in a direct inguinal hernia. For solution B an ordinary 5 cc. syringe was used, while with solution C an ordinary tuberculin syringe was found most satisfactory. A 22 gage needle, preferably with the security anesthesia guard to prevent possible breaking of the needle within the abdomen, was employed.

TECHNIC

The injection was carried out in the following manner: The patient was placed in the supine position and the truss was removed and replaced, unassisted, by the patient. The skin was prepared by washing with 40 per cent alcohol, and, after careful examination to make certain that the hernia was reduced, the solution was injected slowly and firm pressure was exerted thereafter for a few minutes. The syringe must be aspirated before the injection is made to make sure that one is not in a blood vessel. It was found that the

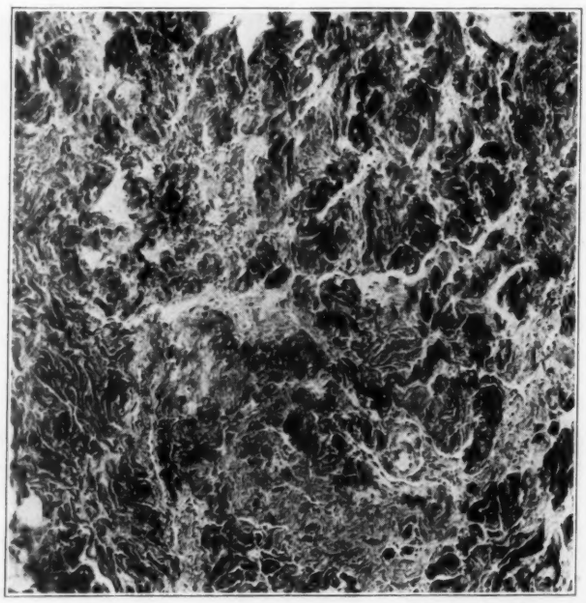

Fig. 4.—Mature connective tissue eight weeks after injection with solution C under low power (× 115).

greater number of our cases were of the inguinal type and therefore the technic will be given in some detail. The following landmarks must be noted: the anterior superior spine, the pubic spine, and a point located just above the midpoint on a line drawn between these two landmarks. The last mentioned represents the position of the internal ring. All injections were made along the entire course of the canal regardless of the type of hernia, because it was noted in some of our cases that when an apparently direct inguinal hernia was treated and the external ring was completely closed subsequent weakness developed about the internal ring and vice versa, so the area through which the hernia protruded was treated first and the remainder of the canal subsequently. It might be added that in the case of direct inguinal hernia the solution was deposited also within Hesselbach's triangle and along the conjoined tendon. In this case the solution was introduced mesial and posterior to the cord. A distinct "give" sensation is experienced as the needle goes through the fascia. When injecting about the external ring it is obviously easier to do this under the direct guidance of the finger, which is gently inserted therein. In the case of the internal ring one is aware that the point of the needle has entered this area by the fact that, following its introduction, the body of the needle may be moved freely in any direction. In addition to this fact, as a rule, the patient will complain of slight pain along the cord or in the testicle on the side that is being injected. In the case of femoral hernia, the point of the needle is placed in the femoral canal mesial to the surgeon's finger, which is previously placed therein. This, obviously, is necessitated by the proximity of the femoral vessels and nerves. In incisional and umbilical hernia, care was used to deposit the solution directly into the fascia with the hernia well reduced to prevent any injury to a viscus.

In our series of cases we found that the average number of injections required were from eight to twelve, which were given once or twice a week, depending on the reaction. In a very few cases four or five injections seemed to give a firm closure, and in a few cases as high as twenty-four injections were necessary. It was our custom not to remove the truss at night until the whole area seemed firmly closed, and the patient was not allowed to remove the truss permanently until the entire area through which the hernia had presented itself was firm and no impulse could be elicited when the patient coughed in an erect standing position. This last test was not made until we were quite certain that a good closure had been accomplished. All patients were advised to return for a check up three times yearly, to avoid constipation, and to replace the truss if suffering from any unusual or prolonged coughing spells.

Apparent clinical cure has resulted in as few as four injections, but we are quite aware of some absorption of the fibrous tissue, as proved by subsequent check ups in treated cases. The ideal end result of this treatment is the development of a permanent firm closure with fibrous tissue. It is therefore necessary to check these cases after discharge at monthly intervals for six months.

A summary of our cases shows that 350 cases were examined, of which 308 were found suitable for treatment. One hundred and seventy patients are now under active treatment and 138 have been discharged as completely cured. The remaining forty-two patients failed to cooperate. The age range was from 11 to 90 years. It is our custom to have all patients return for a check up about three times yearly. Our recurrent rate in all types of hernia treated has, to date, been 8 per cent. By recurrences we designate as such any with a definite impulse, even though the hernia of its original size has not returned. It might be further stated that when recurrences do result the hernia is invariably much smaller than the original one.

COMPLICATIONS

The obvious need for the truss to remain in one position, with steady pressure over the point of exit, led to superficial skin necrosis in ten cases, or 3 per cent. During the healing of these lesions no injections were given, nor was the pressure of the truss relaxed. The areas usually were washed with tincture of green soap and water, then thoroughly shaved, and a dusting powder used before the truss was reapplied. All such lesions healed without difficulty in from ten to twenty days. In twelve of our cases (4 per cent) swelling developed in the cord, associated with tenderness in the testicle; usually such swelling was transient and sub-

sided without special treatment. The question of sterility resulting in such cases has been previously raised.[21] However, we were struck with the high incidence (8 per cent in our series) of extreme or partial atrophy of the testicle, associated with hernia, before any treatment was started. We are inclined to believe that some sterility occurs in untreated cases as well as after surgery and this procedure. No authentic data on this feature have been presented as yet. To date none of our patients have complained of impotence. However, in an endeavor to investigate more thoroughly this (potential) possibility, we intend to check on specimens of semen from patients treated for bilateral hernias. In the total number of injections given in this series of cases only two reactions occurred, in which, we confidently feel, the irritant entered the sac and found its way into the general peritoneal cavity. Both patients complained of severe abdominal pain and weakness. On examination both patients had a weak pulse, a cold sweat and an anxious look, simulating a condition of shock. No special treatment was instituted and all symptoms disappeared after about one hour. Both patients left the clinic after two hours unaided. The possibility of injecting a strong irritant into the contents of an unreduced hernia will always remain a potential hazard with those wishing to employ this technic in the treatment of hernia. Our own experience, and the experience of other writers on the subject, makes us feel that this possibility is not great if due care is used. Nevertheless, we wish again to stress the importance of thoroughly examining the canal before any irritant is introduced into it.

CONCLUSIONS

These results indicate that the injection treatment of hernia in selected cases, and with the preparations here employed, carried out with careful attention to technic, has a definite place in the management of hernia. It does not seem in the light of our experience and results reported here that the hazards are greater than those from other forms of treatment. The recurrences following this treatment seem to be considerably less than after surgery. The duration of observation, however, is too short for certain opinion on this problem. When recurrences do result, the further treatment necessary to effect a cure is considerably less than the complete new procedure required by surgery. The injection treatment should be looked on as an aid in attacking the problem of hernia, and it is not our belief that it will supplant surgery more than by eliminating the necessity for operation in certain types of cases.

122 South Michigan Avenue—636 Church Street.

21. Injection Treatment for Hernia, Queries and Minor Notes, J. A. M. A. **104:** 1658 (May 4) 1935.

Banishing Certain Foods.—One cannot get the best results by simply trying to avoid fattening foods, for practically every food is more or less fattening when eaten in addition to a dietary already sufficiently rich in calories. The intelligent procedure is not to banish any food simply because of its calories or its reputed fattening power, but to consider the food also with reference to its mineral elements and vitamins. Milk and potatoes are so valuable in these respects that the former should be, and the latter well may be, retained in even a rigorously reducing diet: banish rather such things as sweets and pastries, which are much more concentratedly fattening and have almost no vitamin value. "No calories without vitamins" may serve as a reminder.—Sherman, H. C.: Food and Health, New York, Macmillan Company, 1934.

REVERSIBLE CARDIAC ENLARGEMENT

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Cardiac enlargement is usually associated with valvular defects or with hypertension. Once established in connection with these diseases, the enlargement is in general irreversible and constitutes a discouraging feature in the treatment of heart disease. It is, however, interesting and encouraging to consider that there are three distinct conditions causing cardiac enlargement in which the heart returns to normal size after specific therapy. These conditions are arteriovenous aneurysm, beriberi and myxedema. It is my purpose in this article to review briefly the cardiac aspects of these diseases and to bring together from the literature reproductions of x-ray films which vividly portray the return of the heart to normal size.

ARTERIOVENOUS ANEURYSM

Figure 1, from a report by the Deans,[1] shows the heart shadow before and after the surgical treatment of an arteriovenous aneurysm. The patient complained of shortness of breath and palpitation. There was a pulsating mass in Scarpa's triangle, over which a thrill

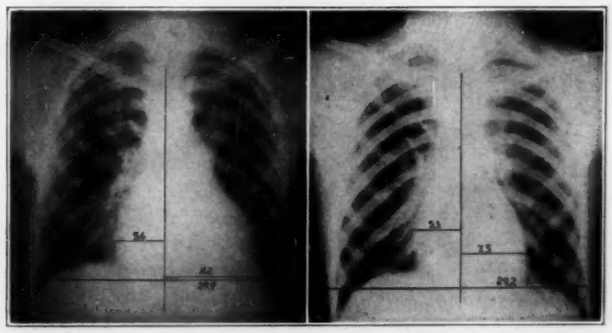

Fig. 1.—The heart before (on the left) and after the operative treatment of arteriovenous aneurysm. (From Joseph and J. C. Dean.[1])

was palpable and a humming noise audible. Manual pressure over the mass (thus occluding the fistulous opening) caused a change in blood pressure from 140/50 to 150/70. The shortness of breath and palpitation entirely disappeared after treatment. The second film, showing the return of the heart shadow to normal size, was made one month after operative treatment of the aneurysm.

BERIBERI

Cardiac enlargement in beriberi has long been recognized. A comprehensive investigation of the cardiac and circulatory changes in beriberi was made by Aalsmeer and Wenckebach,[2] the clinical observations being made in Java by Aalsmeer. All the cases of beriberi, even the mildest, showed perceptible enlargement of the heart on roentgen examination. When polyneuritis is absent, the onset of cardiac failure may be acute, leading to the serious and often fatal condition called by the Japanese "soshin." These cases are characterized by the sudden onset of extreme dyspnea, cyanosis, substernal pain and possibly rapid death. Wenckebach is of the opinion that the absence of neuritis is the

1. Dean, Joseph, and Dean, J. C.: Arteriovenous Aneurysm: Its Effect on the Heart, Wisconsin M. J. **33:** 587 (Aug.) 1934.
2. Aalsmeer, W. C., and Wenckebach, K. F.: Herz und Kreislauf bei der Beri-beri-Krankheit, Wien. Arch. f. inn. Med. **16:** 193 (Jan. 20) 1929.

determining factor in these acute cases. Neuritis forces the patient to go to bed, or at least to curtail his activities markedly, and thus protects him from excessive heart strain.

Wenckebach also states that the cardiac enlargement in beriberi is not a true hypertrophy of the muscle fibers but is rather a colloidal imbibition of fluid, analogous to myxedema, and contrasting with the state of free fluid as in ordinary edema.

Figure 2 is from the studies made by Aalsmeer and shows the rapid return of the heart of a beriberi patient

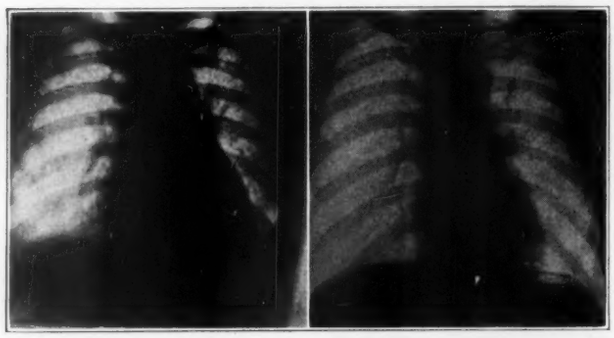

Fig. 2.—The heart before and after the specific treatment of beriberi. (From Aalsmeer and Wenckebach,[2] their figures 9 *a* and 9 *b*.)

to normal size on treatment with foods rich in vitamin B. Fifty-two days intervened between the two films.

Beriberi is far from being a disease purely of academic interest in the United States. Scott and Herrmann [3] state that it has been recognized in Louisiana since 1903. The natives of French descent have known it for a much longer time under the name of the "maladie des jambes." These authors state that the differential diagnosis between beriberi and primary myocardial insufficiency is at times very difficult. Riesman and Davidson [4] have reported two cases of beriberi in Philadelphia. Further, the polyneuritis associated with alcoholism is now known to be a vitamin B deficiency [5] rather than the result of a direct toxic action of alcohol on the nerves. Likewise, the polyneuritis sometimes occurring in pregnancy is probably a deficiency disease.[6] Observation on the size of the heart in cases of polyneuritis associated with alcohol and in infants suspected of vitamin B deficiency would be of extreme interest.

MYXEDEMA

The heart enlargement often accompanying myxedema has attracted considerable attention in recent years. Figure 3 is an example observed by me of the effect of myxedema on the heart, and the return of the heart to normal size following thyroid therapy.[7] Five months intervened between the two films, though fluoroscopic observations showed that the heart reached normal size much earlier. This particular patient also showed auricular fibrillation. This patient illustrates well the fallacy of always considering cardiac enlargement irreversible. He had been previously hospitalized and the cardiac enlargement clearly demonstrated by roentgen examination. The enlarged heart had, however, immediately led to the conclusion that his illness was incurable and he had been discharged after brief digitalis medication.

COMMENT

These three conditions, so beautifully amenable to specific therapy, must be considered in the differential diagnosis of all cases of cardiac enlargement. Even an arteriovenous aneurysm in Scarpa's triangle and causing heart symptoms and heart enlargement may not be evident on first examination, as is so strongly emphasized in the case reported by the Deans.[1]

It is of course doubtful whether these instances of cardiac enlargement have any bearing on the larger problem of cardiac involvement in hypertension. However, Christian [8] found that only about two thirds of the cases of nonvalvular cardiac enlargement of middle age are related to present or past hypertension, and he states that there are many "unanswerable riddles" in discussing the relation of hypertension to cardiac enlargement. From this it may be inferred that cardiac enlargement in hypertension is not necessarily the benign compensatory process resulting from purely mechanical causes, as generally considered. Riesman and Davidson [4] are strongly of the opinion that there is a nutritional factor in cardiac patients who have repeated attacks of decompensation. The metabolic origin of another cardiac disease, namely, coronary sclerosis, is a seriously considered hypothesis.[9] Possibly along similar lines of investigation the future may demonstrate that our present conception of cardiac enlargement in hypertension as arising purely from mechanical factors is too naive.

SUMMARY

X-ray films show the striking return to normal size of enlarged hearts in arteriovenous aneurysm, beriberi and myxedema. These show that an enlarged heart is not always a permanent irreversible condition. The three diseases are readily amenable to specific treatment and they must be considered either as primary or as contributing factors in the differential diagnosis of all enlarged hearts.

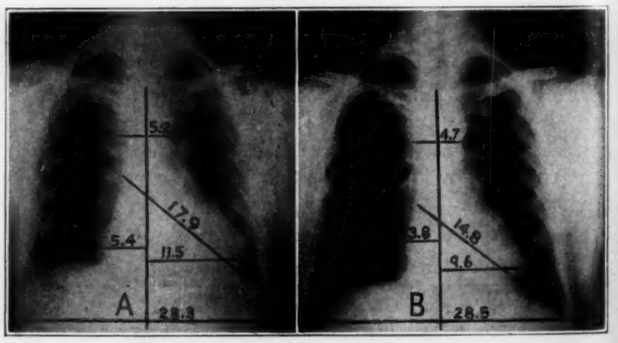

Fig. 3.—The heart in myxedema, before and after specific treatment with thyroid.

223 Masonic Temple.

3. Scott, L. C., and Herrmann, G. R.: Beriberi ("Maladie des Jambes") in Louisiana, J. A. M. A. **90:** 2083 (June 30) 1928.
4. Riesman, David, and Davidson, H. S.: Beriberi Following Drastic Voluntary Dietary Restriction, J. A. M. A. **102:** 2000 (June 16) 1934.
5. Minot, G. R.; Strauss, M. B., and Cobb, Stanley: "Alcoholic" Polyneuritis: Dietary Deficiency as a Factor in Its Production, New England J. Med. **208:** 1244 (June 15) 1933.
6. Strauss, M. B., and McDonald, W. J.: Polyneuritis of Pregnancy, a Dietary Deficiency Disorder, J. A. M. A. **100:** 1320 (April 29) 1933.
7. Walker, J. E.: Hypothyroidism Associated with Cardiac Enlargement ("Myxedema Heart") and Auricular Fibrillation, J. A. M. A. **100:** 1025 (April 1) 1933.
8. Christian, H. A.: Chronic Nonvalvular Cardiac Disease or Chronic Myocardial Insufficiency and Its Therapeutic Management, Ann. Int. Med. **5:** 95 (Aug.) 1931.
9. Leary, Timothy: Atherosclerosis, the Important Form of Arteriosclerosis, a Metabolic Disease, J. A. M. A. **105:** 475 (Aug. 17) 1935.

A SUMMARY OF REGIONAL ILEITIS

WITH REPORT OF A CASE OF COLONIC INVOLVEMENT AND SUGGESTION OF A NEW TERM

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AND
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For the past three decades a number of granulomatous conditions of the intestine, possessing common symptomatic and pathologic features, have been described. Clinically and microscopically they were mistaken for malignant conditions but, on microscopic examination, proved to be benign, inflammatory lesions. They were also frequently mistaken for appendiceal conditions.

It was not until 1932 that they were described as a distinct entity by Crohn, Ginzburg and Oppenheimer [1] as "regional ileitis." A year later Harris and his collaborators,[2] because of the cicatrizing, inflammatory process and the probable involvement of other portions of the intestinal tract, suggested the term "cicatrizing enteritis."

No definite etiologic factor or factors have been isolated. Infection has been thought of as a possible cause, especially certain of the anaerobic groups. The disease occurs most frequently in young adults, more commonly in males. However, cases have been reported from the ages of 4½ years to 40 years. The usual site of disorder is the terminal ileum, although other portions of the intestine may be involved.

The pathologic condition is "one of proliferation of the hematopoietic cells, and mainly proliferation and irritation of the somatic cells of the intestinal wall." [3] The picture is that of inflammation of the ileac mucosa with subsequent ulceration. The intestinal coats are edematous and thickened. The mesentery is thickened, and the glands are hyperplastic. Eventually, owing to the fibrostenotic process, narrowing of the lumen results. There is a marked tendency toward perforation, and the formation of a localized mass in the right lower quadrant and of a fistula into the adjoining intestine. Microscopic section reveals acute, subacute or chronic inflammatory reactions. Giant and epithelioid cells are present in the later stages.

Clinically, the condition presents the following symptomatic characteristics:

Fever, generally low (highest 103 F.), fluctuating with periods of normality.

Diarrhea, one or two stools daily, containing mucus and at times occult blood.

Anorexia, with progressive loss of weight, secondary anemia and malaise.

Pain, dull and cramplike in the right lower quadrant. If an ileosigmoid fistula exists, the pain may be felt in the left lower quadrant.

Leukocytosis, moderate.

Pulse, rapid.

Stenosis, manifested by constipation with some vomiting, distention, and a palpable mass in the right lower quadrant.

Roentgenologic investigation is the most essential means of establishing a diagnosis and, in conjunction with the clinical symptomatology, makes a rather definite roentgen picture.

Kantor,[3] in his recent article on "regional ileitis," summarizes the roentgen technic and his observations as follows:

The usual oral opaque meal is employed, as well as a barium sulfate enema. Serial observations are made at hourly intervals from the period just before the cecum fills to the normal period of emptying. This is about three to nine hours after the ingestion of the opaque meal. The patient is then permitted to partake of an ordinary meal as soon as the stomach is empty.

The abnormalities, as revealed by the roentgenologic studies, may be in either the ileum or the colon or both. The changes in the latter may be reflex in nature—that of a secondary spasm—or may show actual progression of the disease from the ileum.

The principal changes in the ileum, briefly, are:

(*a*) Filling defects just proximal to the cecum.

Fig. 1.—Dilatation of the proximal position of the ileum at three and one-quarter hours.

(*b*) Abnormality in contour of the terminal loop of the ileum.

(*c*) Dilatation of ileac loops just proximal to the lesion. (This is demonstrable in the stenotic phase.)

Kantor describes a roentgenologic sign which, though not pathognomonic of the disease, is strikingly suggestive and characteristic. He called this the "string sign," a thin, slightly irregular linear shadow suggesting a cotton string in appearance and extending from the region of the last visualized loop of ileum through the entire extent of the filling defect, and ending at the ileocecal valve. It represents the attenuated barium filling of the greatly contracted intestinal lumen. Weber has recently offered the term "twisted cord appearance" as an alternative for "string sign."

The absence of the string sign does not exclude the disease. In such an instance an effort should be made to demonstrate the filling defects in the terminal ileum and the result accepted as a suggestive finding.

Several other conditions may confuse both the roentgenologist and the clinician and necessitate a differential roentgenologic and clinical diagnosis. The string sign

1. Crohn, B. B.; Ginzburg, Leon, and Oppenheimer, G. D.: Regional Ileitis, J. A. M. A. **99**: 1323-1328 (Oct. 15) 1932.
2. Harris, F. I.; Bell, G. H., and Brunn, H.: Chronic Cicatrizing Enteritis, Regional Ileitis (Crohn), Surg., Gynec. & Obst. **57**: 637-645 (Nov.) 1933.
3. Kantor, J. L.: Regional (Terminal) Ileitis: Its Roentgen Diagnosis, J. A. M. A. **103**: 2016-2021 (Dec. 29) 1934.

has been observed in sarcomas and in syphilis of the terminal ileum. A filled appendix dipping into the pelvis may likewise be confusing.

Clinical differentiation includes ulcerative colitis, typhlitis, lymphosarcoma, intestinal or mesenteric tuberculosis, Hodgkin's disease, actinomycosis or malignancy of the terminal ileum, and appendiceal disorders.

Medical treatment is usually unsatisfactory. Surgical intervention is the treatment of choice.

Fig. 2.—String sign, involvement of colon, at five and three-quarters hours.

The case to be considered shows a typical clinical and roentgenologic picture of regional ileitis, with added involvement up to but not including the distal portion of the transverse colon. The patient had been previously treated for four years for subacute bacterial endocarditis (despite negative blood cultures) and renal disease.

REPORT OF CASE

Mrs. B. R., white, aged 24, seen Nov. 11, 1934, complained of fever, cramplike pains in the right lower quadrant, and diarrhea. She had daily two or three loose, offensive bowel movements containing a slight amount of mucus but no blood. This had been going on for two weeks, although the cramps had been experienced at irregular intervals for the past five or six years. There was no history of surgery, an accident or venereal disease. One pregnancy ended as a spontaneous abortion at three months. The menstrual history was negative save for a two months amenorrhea following the attacks. Her mother had died of metastatic carcinoma of the breast.

In 1930 the patient had been hospitalized for ten weeks because of fever, rapid pulse, occasional cramps of the right lower quadrant and offensive stools. In her description of the hospitalization she stated that her condition was diagnosed as "heart disease." Later, as bacteriuria was observed, cystoscopy was resorted to and the kidneys were "washed out." This produced some relief, but the highly offensive diarrhea and tachycardia persisted.

The essential physical manifestations, November 11, were: temperature, 99.5 F.; pulse, 110; blood pressure, 120 systolic and 75 diastolic. There was a soft, systolic mitral murmur. A definite, palpable mass was found in the right lower quadrant of the abdomen, very tender to slight palpation, not freely movable, with the maximum points of tenderness in the region of the cecum. Borborygmi were easily auscultated over the entire colon, especially over the ileocecal area. The urine was normal; leukocytes numbered 14,000; examination of the stool was negative for ameba. The clinical impression was that the patient was suffering from either an appendiceal abscess or colitis.

The patient was placed at complete rest. Except for a rapid pulse and one daily foul-smelling watery stool, with a feeling of relief after defecation, improvement was noted until December 6. On that day, four hours after dinner (which included smoked fish, mashed potatoes and a cold chocolate drink), nausea and vomiting occurred, with a repetition the next day, following a somewhat similar meal. From this time on there was a temperature range of from 99.4 F. in the morning, to 100.5 F. in the afternoon and 100.1 F. in the evening. With such symptoms, investigation was renewed. A more intensive laboratory and roentgenologic investigation was undertaken.

Laboratory examination gave the following results: The Kahn, Wassermann, complement fixation, and Aschheim-Zondek tests were negative. Agglutination tests with the antigens of Bacillus typhosus, B. paratyphosus A and B, B. dysenteriae and B. enteritidis, and abortus, melitensis and porcine groups of Brucella were negative. Blood cultures for these groups, as well as for staphylococcus and streptococcus organisms, were also negative.

Urine analyses at intervals of three days showed occasional hyaline casts but were otherwise negative.

A blood count showed 4,200,000 erythrocytes with 75 per cent hemoglobin, and 9,100 leukocytes, with 76 per cent neutrophils and 24 per cent lymphocytes. On fecal analysis the milk culture for Bacillus Welchii on three occasions showed 4, 2 and 3 plus. Gram stain was from 50 to 75 per cent positive. In one instance Streptococcus viridans was isolated in culture.

December 17 a barium sulfate enema was administered, but visualization extended only to include the distal portion of the transverse colon. Marked distention of these portions was revealed, but the remainder could not be demonstrated.

Enema administration and examination could not be continued, as the patient complained of violent cramps. The same night she developed a temperature of 103.5 F., with marked chills and pains in the right lower quadrant. Relief was obtained by the use of narcotics. At this time the report of her previous hospital sojourn was received and is quoted here in its entirety:

"Miss B. S. [now Mrs. B. R.] was under observation at the ——— Hospital from April 1 to June 17, 1930. At that time

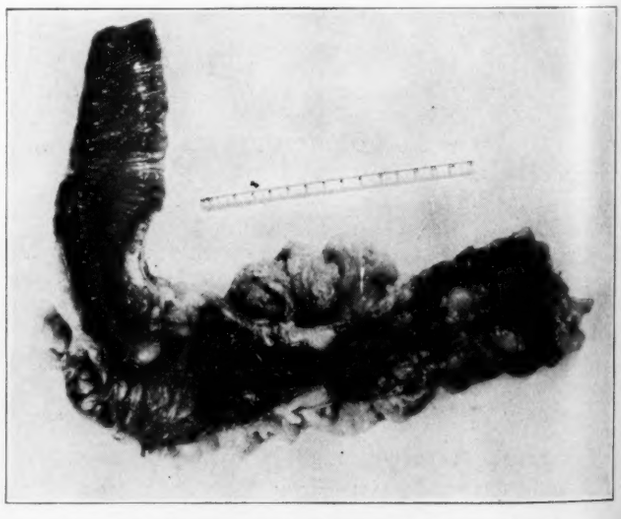


Fig. 3.—Sagittal section showing ulceration and polyposis.

her complaint was fever. After making complete studies we came to the conclusion that she had a subacute bacterial endocarditis. This diagnosis was made in spite of the fact that repeated blood cultures were negative.

"After being at the hospital for four weeks, we observed that she had an unusually large amount of bacteria in her urine. Cystoscopy revealed an occlusion of one of the ureters, and a partial blockage in the other. They were both dilated with miraculous improvement of the patient. Repeated dilation brought about a complete cure."

Since the patient complained of symptoms similar to the ones in the foregoing report, it occurred to us that a possible urinary condition might exist. To exclude this, cystoscopy was performed, followed by pyelography. The examination was negative, the flat plate, however, showing definite shadows of increased density in the cecum and ascending colon areas. Investigation of the cecum at a later date was deemed advisable.

Jan. 28, 1935, the patient felt better, and it became possible to proceed with the complete roentgenologic examination of the gastro-intestinal tract. Roentgenologic studies revealed

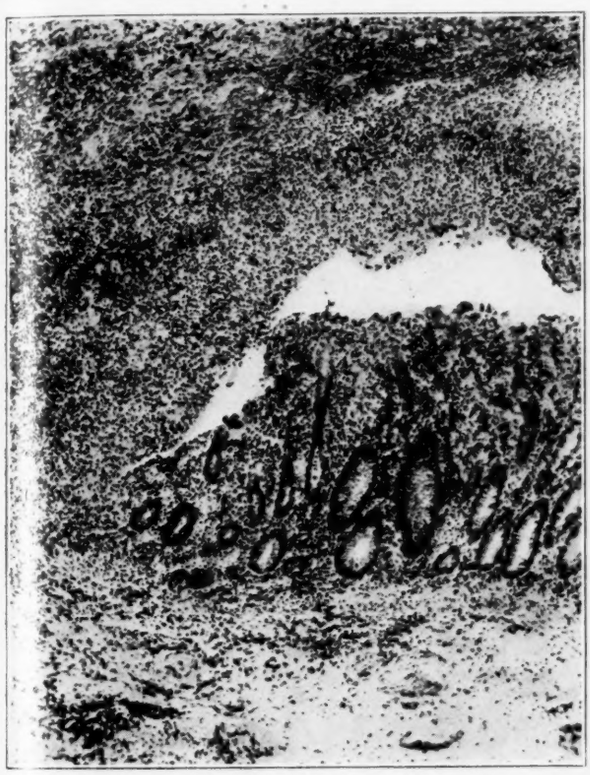


Fig. 4.—Margin of an ulcer; × 80.

nothing abnormal in the chest, esophagus, stomach or duodenum. At three and one-quarter hours there was some dilatation of the proximal portion of the ileum.

At five hours the terminal ileum showed many filling defects, suggestive of polyposis, and a narrowing just about the ileocecal valve, the cecum being contracted.

At five and one-half hours there was a suggestion of a "string sign," the cecum, ascending colon, hepatic flexure and proximal half of the transverse colon showing defects suggestive of polyposis. There was still a gastric residue at this time.

At five and three-quarter and six and one-half hours there was definite demonstration of the "string sign" as well as a definite involvement of the colon up to the midportion of the transverse colon. The remainder of the colon was negative.

Roentgenologic conclusions were that there was terminal or regional ileitis with involvement up to the midportion of the transverse colon, and polyposis.

Combining the clinical, roentgenologic and laboratory observations and recognizing the colonic extension, we consider "ileocolitis ulcerosa chronica" as a phrase more truly descriptive of the picture.

Treatment consisted of general supportive measure, symptomatic medication, ultraviolet radiation, and 1 : 4,000 acriflavine hydrochloride retention enemas. Relief, at its best, was merely transitory.

February 10, pain in the region of the ileum was experienced and became so severe as to necessitate the use of opium. February 13 witnessed another attack, this time very suggestive of an obstruction.

Because of the recurrence and progressive severity of these pains and the poor results obtained with medical management, surgical intervention was deemed the final treatment of choice, and the patient was operated on by Dr. Alfred Strauss, February 18.

Dr. Alfred Strauss and Dr. Herman Strauss reported on the removal of the lower part of the ileum, the ascending and part of the transverse colon as follows:

A right rectus incision was made. The cecum and transverse colon were brought forward. Before opening the abdomen under anesthesia one could palpate the colon as a hollow tumor mass through the abdomen. When the abdomen was opened a typical regional ileitis was found. About 8 to 10 inches (20 to 25 cm.) of the terminal ileum, cecum and ascending colon, and about half the transverse colon was a solid infiltrated tumor mass, verifying the roentgen examination.

The parietal peritoneum was freed laterally. The mesentery was clamped and cut. The ileum was taken well wide of the inflammatory area. Clamps were placed and amputation was done. The ends were carefully cauterized and covered. The mesentery was clamped, cut and ligated in the usual manner, to the middle of the transverse colon. The bowel was transversely clamped and cut and the ends were carefully cauterized and phenolized. The mesentery was sutured, the parietal peritoneum was recovered, and the two cut ends were brought through the incision. The incision was closed in the usual manner. The operation was done rapidly with good hemostasis, the time being one hour and ten minutes. The patient left the operating room in good condition.

The clinical diagnosis was terminal ileitis.

A pathologic diagnosis, furnished by Dr. Otto Saphir, February 22, on microscopic examination, was marked acute pseudomembranous and ulcerating enterocolitis. Histologically, a bacillary dysentery infection was suggested.

The gross specimen consisted of a terminal portion of the ileum, measuring 18 cm., and a cecum, with attached appendix, measuring 30 cm. in diameter. The serosa of the ileum was a purple red, smooth and shiny. The serosa of the cecum was completely covered by fatty tissue. The walls of both ileum and cecum seemed thickened, especially in the region above the ileocecal valve. The mucosa of the last 8 cm. of the ileum was markedly thickened and polypoid. The polyps had very wide bases and appeared fused. Occasionally a bridge of mucosa could be demonstrated between the polyps. The mucosa between the polyps was a grayish white. The mucosa of the

Fig. 5.—Polypoid elevation (high)

cecum was similarly involved. Many of the polyps here had narrow bases.

Under gas anesthesia the old scar was excised, June 4. The two ends of the bowel were easily freed from the belly wall. Then an end-to-end anastomosis was made with gastro-intestinal and interrupted silk sutures. The abdominal wall was closed with interrupted chromic catgut, with a Penrose tube brought out through the incision.

The patient made an uneventful recovery. She gained 30 pounds (13.6 Kg.) and at present is free from all symptoms.

SUMMARY

1. The picture of regional ileitis is that of dull pain in the right lower quadrant, low grade intermittent fever, slight diarrhea, anorexia, anemia and rapid pulse.

2. Roentgenologic studies of the ileum reveal characteristic manifestations.

3. In cases in which the pathologic condition extends to the colon, we suggest the term "ileocolitis ulcerosa chronica."

4. The treatment of choice is surgery.

185 North Wabash Avenue — 104 South Michigan Avenue.

Clinical Notes, Suggestions and New Instruments

SAFE LIGATURE OF THE RENAL PEDICLE WITH CLAMPS OF NEW DESIGN

HUGH H. YOUNG, M.D., BALTIMORE

Safe handling of the renal pedicle in cases requiring nephrectomy often furnishes a serious problem to the surgeon. Too often have one or more vessels slipped from the grasp of the clamps when the pedicle has been divided. Sometimes only one vessel has escaped and given the surgeon a painful period while searching to stop the bleeding and successfully place a ligature. In one of my cases the vessels retracted so deeply behind the colon that it was impossible to find them.

Some surgeons have held that each individual vessel should be isolated and ligated, but they are often matted together in inflammatory or fibrous masses, and, in attempts to isolate them, tears are made which further complicate the problem. Owing to the dangers of ligatures slipping, some surgeons have advocated leaving clamps on the pedicle and removing them about four days later, but I know of one instance, when, even after more than four days, removal of the clamps was followed by a fatal gush of blood from a greatly dilated renal vein in a case in which nephrectomy had been done for a huge tumor.

Inspection of pedicles which have been crushed by strong clamps shows that the tissue remaining between the jaws of the clamps is so greatly reduced that when the ligature is tied the amount of tissue within it is minimal. The problem is to insure that the ligature will not slip. Conceding that two well placed ligatures of heavy chromic catgut are requisite, the question is how to prevent their slipping off the pedicle.

After having tried various procedures, I present herewith some specially designed clamps which I believe answer the problem of safe ligature of the renal pedicle. The technic and modus operandi of the individual clamps are so well shown in Mr. Didusch's drawings that further description is scarcely necessary. As seen here, three clamps are employed. The first (No. 1) is placed fairly deep, but still not too close to the aorta or vena cava. As seen in figure 1, each blade of the first clamp is cut away obliquely on the concave border, so that the surfaces, which come together, are thus narrowed. The second clamp is cut away obliquely on the convex border. When the blades of clamp 1 are forcibly brought together across a pedicle, the obliquity of the outer concave edges crowds the tissue of the pedicle outward and the clamp inward (fig. 2). The second clamp is cut away on the convex border and, when applied, the tendency is for the clamp to be pushed outward while the tissues between the two clamps are forced up in the form of a prominent transverse ridge on each surface of the pedicle (2, fig. 2). The application of these clamps thus automatically produces a transverse ridge or shoulder of tissue between them.

I prefer to apply a third clamp next to the renal pelvis and kidney to insure against cutting into these structures. It is particularly important in malignant and tuberculous cases for these structures not to be opened when the pedicle is divided. I therefore prefer to place the third clamp externally next to

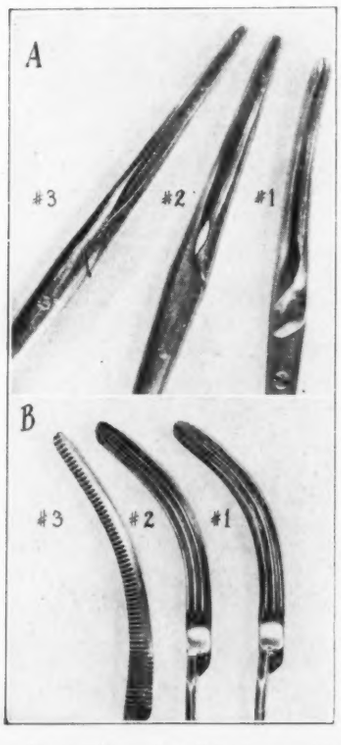


Fig. 1.—Young's pedicle clamps with oblique cut-away of adjacent borders. The blades of clamp 1 are cut away obliquely on the concave border and the blades of clamp 3 on the convex border. Clamp 3 is similarly cut.

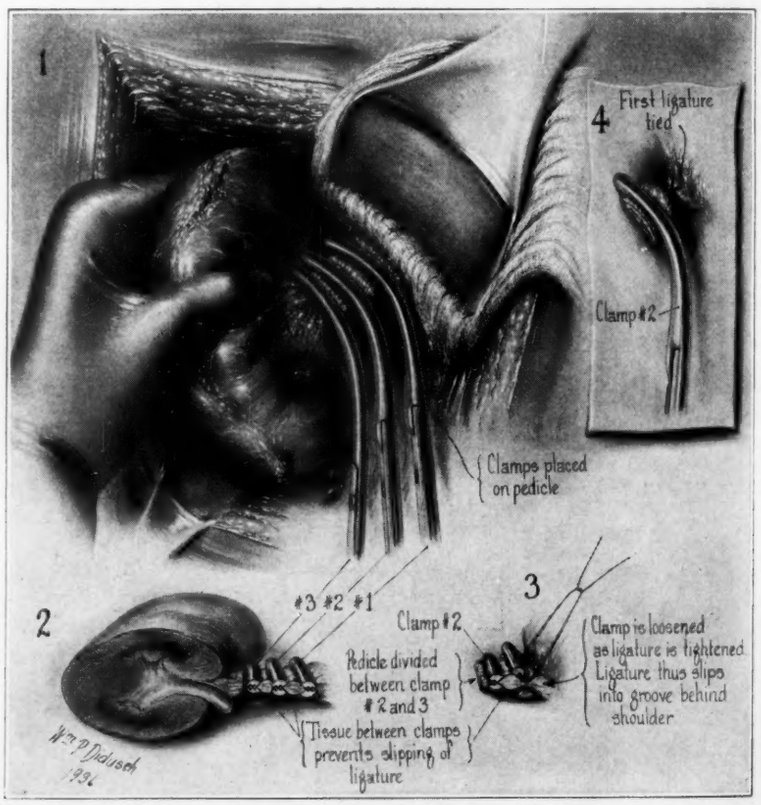


Fig. 2.—1, the new clamps are shown on the pedicle. In sectional view, 2, the humps or ridges of tissue forced up by the cut-away clamp blades are depicted. Placing the ligature in the groove, left by releasing the clamp, is shown in sectional view 3, and in 4.

From the James Buchanan Brady Urological Institute, Johns Hopkins Hospital.

the kidney. The clamp I use is thinner and straighter than the others, but each blade is also cut away obliquely along its external border, thus insuring the production of a transverse hump or ridge of tissue between the second and third clamp. The operator, being certain that such has occurred, may safely cut with a knife or scissors as close as possible to the external clamp (2, fig. 2) and then proceed to ligate the pedicle.

It is important that the first or deeper ligature should sink into the bottom of the two grooves produced by the clamp.

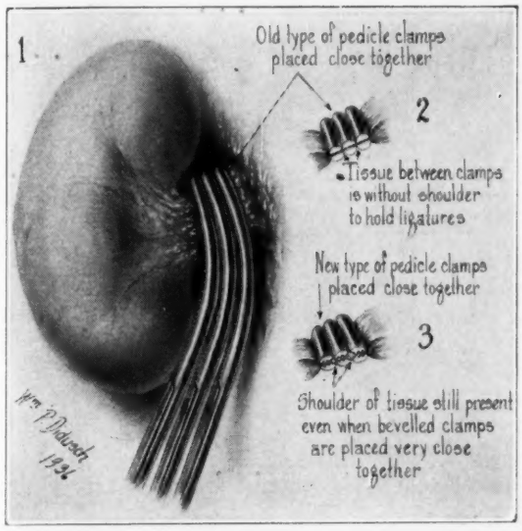

1
Old type of pedicle clamps placed close together
2
Tissue between clamps is without shoulder to hold ligatures
New type of pedicle clamps placed close together
3
Shoulder of tissue still present even when bevelled clamps are placed very close together

Fig. 3.—Three ordinary pedicle clamps are shown placed close together. Sectional view 2 shows the thinly compressed pedicle and absence of ridges or shoulders of tissue between clamps.

After a strand of No. 3 chromic catgut has been placed around the pedicle beneath the deepest clamp (No. 1) the clamp is slowly loosened as the first knot is tied (3, fig. 2). This insures that the ligature slips into the groove and does not remain on the uncompressed pedicle beyond it. As this knot is drawn tight, the clamp is removed, the second and third knots are tied and the ligature is cut. An inspection should then be made to make sure that the technic has been satisfactory and that the ligature is tight. The second ligature is then placed by the same method, clamp 2 being slowly released and removed as the ligature is tied. After this procedure one sees a mass or shoulder of tissue lying external to each ligature (4, fig. 2). The shoulders effectively prevent slipping of the ligatures or escape of a vessel from the grasp of the clamps before ligatures have been placed. These renal pedicle clamps, Nos. 1 and 2, are provided with the longitudinal grooves along the opposing surfaces of the blades instead of transverse grooves, because we have found that they are better adapted for pedicle clamps.

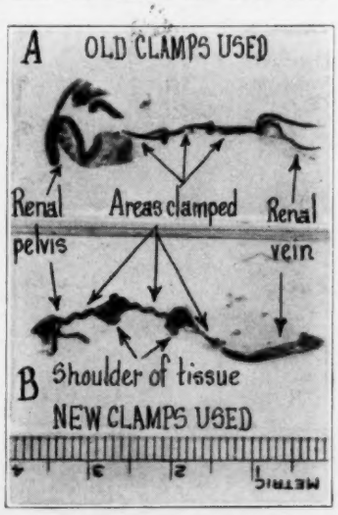


Fig. 4.—*A*, a renal pedicle which had been clamped with ordinary pedicle clamps. This is a longitudinal section mounted and stained. Note how thin the tissues of the pedicle have become, and the very little elevation of tissue between areas clamped. *B*, same—new clamps used. Note the fairly considerable mass of tissue between the clamped areas. This insures that the ligatures will not slip.

The most important detail is the oblique edge on opposite sides of the two pedicle clamps, which effectively forces up a mass of tissue between the clamps and furnishes the shoulder for the important first ligature. The shoulder for the second ligature is produced by the design of the third clamp and its straighter form (less curve), which automatically leaves more tissue between it and the second clamp. The same scheme might also be used for the first and second clamps, the second clamp forming somewhat of an arc across the more curving first clamp and thus insuring a mass of tissue between them; but I believe that the oblique cutting away of the opposite edges of these two clamps accomplishes a better result. Clamps of parallel curvature are more easily placed, especially in short pedicles and more difficult positions beneath large renal masses.

In figure 3 the ordinary pedicle clamps have been placed close together. The sectional view, 2, shows the thin crushed pedicle with little or no tissue between the clamps. It is to be noted that little or no shoulder is present to hold either the first or the second ligature. Figure 4 is a longitudinal section of two pedicles that have been clamped; hematoxylin stain. Note mass of tissue between areas clamped by new instruments. It seems evident that cases of ligature slipping which have been reported not infrequently have occurred as a result of the failure of the operator to secure a shoulder behind which to tie his ligature and thus prevent its slipping. By being careful to see that such shoulders are secured for every pedicle ligature, either with the special obliquely cut clamps presented herewith, as shown in sectional view 3 or by other technical methods described herein, I believe it should be possible to prevent the many accidents, some with fatal ending, that have occurred in surgical practice. Similar technic may be applied to vessels and pedicles requiring ligation in other parts of the body.

DERMATITIS MEDICAMENTOSA DUE TO QUININE

R. O. SETTLE, M.D., WAUPUN, WIS.

H. W., a white man, aged 23, presented himself at the dispensary, April 8, 1932, for treatment of a skin eruption. He reported the presence of an itching, burning eruption of the hands of twelve hours' duration. He stated that he had not recently exposed his hands to any unusual irritant substance and that such a condition had never occurred before. His dentist had extracted a tooth for him the morning before; that evening he had taken two tablets of a proprietary nature (Anacin) containing acetophenetidin, acetylsalicylic acid, caffeine and quinine sulfate, which had been given him by the dentist to relieve any pain he might have following the extraction.

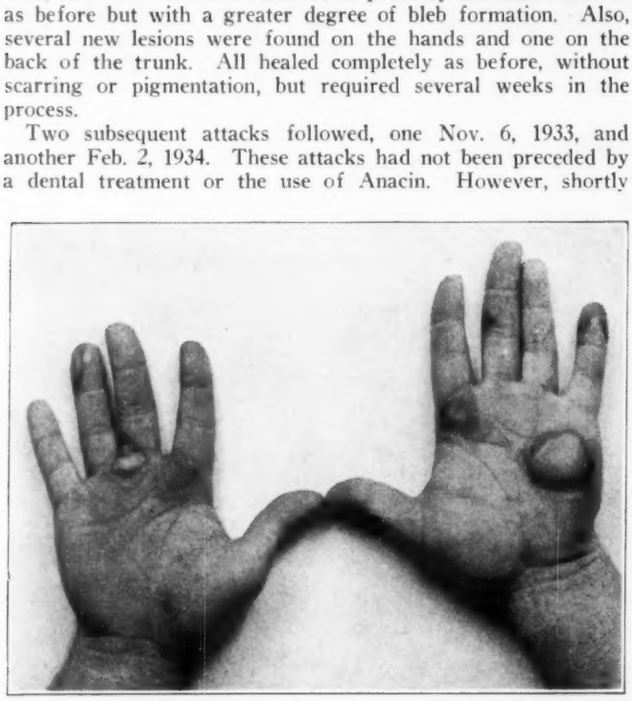
The patient was well developed and in apparently robust health, except that he held his hands out in front of him with the fingers spread, as though to lessen the discomfort. On the palms of both hands were found several lesions of the skin of a somewhat varied character, the most fully developed being a bulla with an acute inflammatory base about 3 cm. in diameter, as shown in the accompanying illustration. Others were erythematous patches with varying degrees of bleb formation in their centers. Four such lesions were found on the palmar surface of each hand. Further examination disclosed a somewhat similar lesion in the center of the tongue, which had occurred at the same time but without bleb formation. General physical examination revealed no abnormal manifestations, except for a blood pressure of 160 systolic, 80 diastolic, a weight of 226 pounds (102. Kg.), several suspicious teeth and a recently emptied tooth socket, absent achilles tendon reflexes, and a slight enlargement of the thyroid. The blood Wassermann reaction was negative and a blood count and urinalysis were negative. He had no fever. Previous medical records of the patient disclosed that he had received antisyphilitic treatment for a considerable period, was released from treatment after becoming serologically negative, and had remained so in the interim. A diagnosis of essential hypertension had been made at one time; the systolic pressure had varied between 150 and 190 over a period of several years. He had had rheumatic fever in childhood. Two years earlier he had been under observation for a suspected psychosis, which had never developed.

The dermatitis of the hands was treated by incision and débridement of the blebs and the application of antiseptic and soothing ointments. Healing was complete in four weeks without scarring or pigmentation.

The patient reported fourteen months later, June 6, 1933, with identically the same condition, the eruption again having occurred after a visit to the dentist and the ingestion of several

Anacin tablets. There had been no tooth extraction at this visit, however. Lesions occurred in precisely the same location as before but with a greater degree of bleb formation. Also, several new lesions were found on the hands and one on the back of the trunk. All healed completely as before, without scarring or pigmentation, but required several weeks in the process.

Two subsequent attacks followed, one Nov. 6, 1933, and another Feb. 2, 1934. These attacks had not been preceded by a dental treatment or the use of Anacin. However, shortly



Appearance of lesions and blebs on hands.

before the last appearance of the dermatitis he had had a cold and had taken several cold tablets that were prescribed for him. When the eruption occurred the last time, the patient was hospitalized and it was discovered that he had a low fever, which persisted throughout the acute stage. After healing was practically complete a search for a causative agent was begun. Several of the ingredient drugs of the Anacin and cold tablets had been tried without effect when it was noticed that the only ingredient common to the two was quinine. A patch test on the arm with an alcoholic solution of quinine sulfate resulted in only a very mild erythema. A scratch test with the same solution on the other arm the next day, however, caused an intense erythema around the scratch and a sudden exacerbation of the subjective symptoms at the site of the healing lesions on the hands; i. e., marked pruritus and burning lasting several hours. When complete healing had resulted, February 26, the patient was given a capsule containing 2 grains (0.13 Gm.) of quinine sulfate. Intense burning and itching of the hands occurred within three hours. Within twelve hours there was erythema at the site of the previous lesions, and within twenty-four hours the condition had been completely reproduced as before. Photophobia and a stinging sensation in the eyes appeared as new symptoms following the oral administration of the quinine.

An interesting observation was the recurrence of the lesions each time in the exact locations as before, with almost identically the same configuration, but in different stages of development. That is, several of the lesions at the first outbreak did not become bullate, but at each succeeding appearance of the condition larger and larger blebs developed. At each subsequent appearance of the dermatitis one or two new lesions would be found, almost all being confined to the hands; those not on the hands were few and scattered and did not form blebs but remained as erythematous patches about 2 cm. in diameter. The lesion in the center of the tongue, resembling a mucous patch with an inflammatory base, recurred each time.

After the patient was informed that he possessed an idiosyncrasy to quinine he volunteered the information that while serving in the army in the tropics he had taken quinine daily as a prophylatic for a considerable period of time without untoward effect. This history lends weight to the idea that the patient had an acquired sensitization to the drug. By avoiding the ingestion of quinine he has had no further recurrence of the skin trouble to date.

Wisconsin State Prison.

AN UNUSUAL CASE OF TERATOMA TESTIS

LLOYD F. CRAVER, M.D., AND FRED W. STEWART, M.D.
Attending Physician and Associate Pathologist, Respectively, Memorial Hospital
NEW YORK

REPORT OF CASE

History.—C. F. S., a high school boy, aged 15 years, applied at the Memorial Hospital, May 24, 1935, having been referred by his local physician, Dr. W. R. Janeway, of St. George, Staten Island. The chief complaints were dyspnea and pain in the right shoulder and chest. The father and mother were living and well. The maternal grandmother died of cancer of the uterus. The maternal grandfather died of tuberculosis. The patient had measles, pertussis and varicella in infancy, an appendectomy in 1931 and tonsillectomy in 1932.

For two months prior to admission to the clinic the boy had complained of pronounced fatigue following the gymnasium period in school. Three and a half weeks before admission he had one day shortness of breath and pain in the right shoulder and right chest. After resting in bed one day he returned to school apparently in good health, but a week later he again complained of the same sort of pain and of dyspnea. Two weeks before admission to the Memorial Hospital clinic he had been admitted to another hospital, where an x-ray film of the chest disclosed a large mediastinal mass, displacing the heart to the left and projecting well into the right side of the chest. He had no cough and had lost no weight.

Physical Examination.—The patient was apparently in fairly good general condition. Examination of the eyes, ears, nose and throat gave negative results. In the neck were a few very small lymph nodes barely palpable in the left posterior cervical chain. The blood pressure was 110 systolic, 60 diastolic. The heart rate was 88. There were no murmurs. Breath

Fig. 1.—Gross appearance of mediastinal tumor.

sounds were decreased over the entire right side, especially posteriorly below the level of the fourth dorsal vertebra. Dulness was observed over the right side of the chest posteriorly and laterally at the base. Anteriorly, the mediastinal dulness at the level of the heart extended four fingerbreadths to the right of the sternum. Examination of the abdomen was negative. The testicles were atrophic, about one-fourth the normal size.[1] A roentgenogram of the chest disclosed numerous dense

1. The patient's mother subsequently informed us that he had never had mumps.

large and small rounded shadows suggesting metastatic deposits. Blood examination revealed: hemoglobin, 85 per cent; erythrocytes, 4,480,000; leukocytes, 15,800; polymorphonuclear cells, 71 per cent; large lymphocytes, 5 per cent; small lymphocytes, 17 per cent; transitional cells, 5 per cent; eosinophils, 2 per cent.

A provisional diagnosis of metastatic intrathoracic malignant tumor, primary, unknown, was made.

As an attempt at palliation, high voltage roentgen therapy, 300 roentgens five times to each of four quadrants of the chest, anteriorly and posteriorly, was given at daily intervals.

Fig. 2.—Typical choriocarcinomatous appearance as shown in all metastases.

May 28, four days after the patient's admission to the clinic, speculation concerning the association in an adolescent male of marked testicular atrophy with multiple intrathoracic metastatic deposits resembling those seen in cases of teratoma testis led to our suggestion that this patient might have some testicular tissue elsewhere than in the scrotum which had given rise to a teratoma. While we regarded our own suggestion as rather fanciful, we decided to have the urine tested for the follicle stimulating factor. To our surprise the report was that at least 10,000 mouse units was present per liter of urine. This indicated the presence of a teratoma and suggested chorioepithelioma.

Course.—At the middle of the cycle of roentgen treatments on June 19 the patient complained of severe frontal headaches. The next day he was obliged to discontinue treatment because of his poor general condition.

June 23 he was admitted to the ward, being disoriented and incontinent. The pupils were widely dilated. The deep tendon reflexes were exaggerated, and there was a questionably positive Babinski sign bilaterally. Spinal tap showed persistently bloody fluid under increased pressure.

The next day, June 24, just one month following admission to the clinic, he died.

Autopsy.—The subject was a well developed, rather emaciated white boy. Rigor was absent. The pupils were equal but dilated. There was no superficial palpable adenopathy.

The tissues of the anterior mediastinum were edematous. Overlying the entire anterior pericardium, attached to it and to the diaphragm, and fusing inseparably with that portion of the right lung overlying the heart, was a bulky, soft, cystic, reddish to brownish red, very friable, hemorrhagic tumor (fig. 1). Its position was too low for thymoma and furthermore it failed to show the characteristic involvement of the great vessels at the base of the heart. Throughout the lung parenchyma of both sides were numerous similar hemorrhagic tumor nodules. Dissection of the bronchi failed to reveal any areas of ulceration that might indicate bronchogenic origin. Numerous nodules of tumor appeared on the pleural surfaces, parietal and visceral, and a bulky mass was attached to the periosteum and muscles of the ninth and tenth ribs and interspaces. Uninvolved areas of pleura showed a gelatinous edema. No evidences of pneumonia were found. The mediastinal lymph nodes were clear.

Aside from marked congestion of the liver, spleen and kidneys, and two small hemorrhagic metastases in the dome of the liver, the entire abdominal viscera were negative.

Both testes were small, very firm and atrophic. No tubules could be seen. The seminal vessels were atrophic, the prostate was normal. The right testis was of homogeneous color and consistency throughout. In the left testis, similar in all other respects to the right, were two small nodules. The upper of the two, situated near the rete, was a small whitish cyst 3 mm. in diameter. The lower, about 1 cm. removed from the former, appeared like a small focus of mucinous tissue not more than a millimeter in diameter. After hardening, the entire testis was cut in serial slices with a razor and nothing else suggestive of a primary tumor could be found. Search was made for pinpoint hemorrhagic areas or foci of pigment but without avail.

Fig. 3.—Diffuse interstitial cell hyperplasia characteristic of both testes. Rare atrophic testicular tubules.

The immediate cause of death appeared to have been increased intracranial pressure, the result of cerebral metastases with hemorrhage. The pituitary was grossly and microscopically normal.

Histologically the main tumor within the thorax proved to be a classic choriocarcinoma, as were of course the other metastases (fig. 2). Both testes were completely atrophic. Very rare degenerated nonfunctional testicular tubules were found in the midst of a generalized bilateral diffuse overgrowth of large interstitial cells (fig. 3). The two distinct nodules

described in the left testis were of great interest. The upper one consisted of a cyst lined by sloughing stratified squamous epithelium as in a cholesteatoma. The very small mucoid area proved to be an adult-looking branching mucous gland with fully developed ducts (fig. 4). No evidence of other teratoid structure was found.

One is therefore probably justified in assuming that in the early stage of the teratoma a choriocarcinomatous portion reached the systemic circulation with fatal results, whereas any residue in the testis disappeared probably through hemorrhagic necrosis. The remainder of the primary tumor remained quiescent in the form of a small cholesteatomatous cyst and a minute area of adult mucous glands.

Blood obtained at autopsy was assayed for the follicle stimulating factor in the urologic laboratories (Dr. R. S. Ferguson) and reported as yielding 250,000 mouse units per liter.

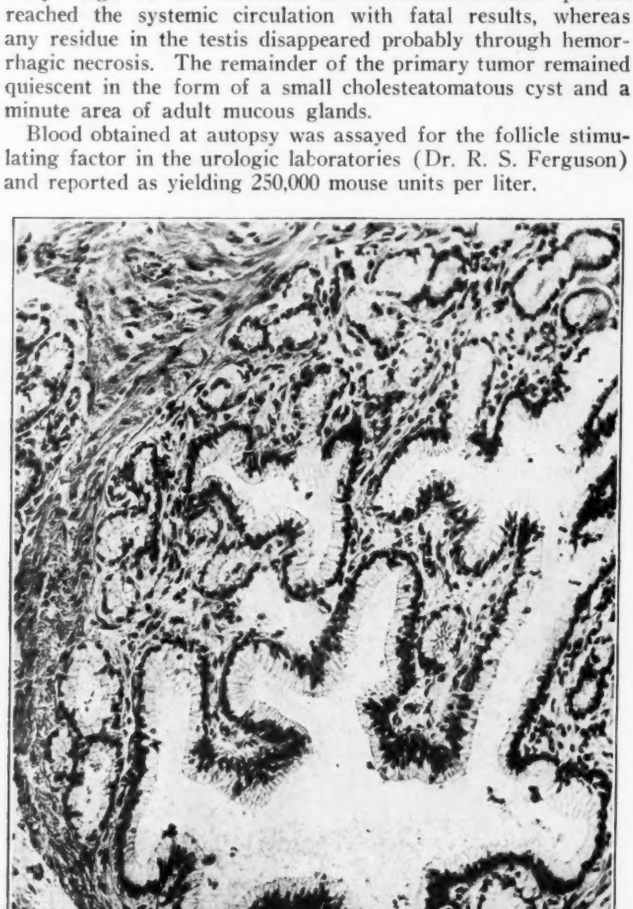


Fig. 4.—Single adult mucous gland which with a cholesteatomatous cyst constituted the entire testicular tumor residue.

COMMENT

The foregoing case report is almost completely analogous with that pictured in De Vries' atlas [2] and reported in the thesis of den Hartog.[3] In that case the only rudiment of teratoma found consisted of a small pigmented area, which they identified as retinal pigment. Adjacent to it was a small cyst 5 mm. in diameter, which proved to be an abscess. The extraordinary interstitial cell hyperplasia in the present case was not found in that of De Vries and den Hartog. The latter writer mentions only a slight increase of interstitial cells. The case furthermore suggests that of Prym,[4] who described choriocarcinomatous metastases from a small tumor of the testis, which had undergone complete local healing by sclerosis, and once more raises questions of interpretation in reports of extragenital choriocarcinoma.

Central Park West at One Hundred and Sixth Street.

2. De Vries, W. M.: Atlas of Selected Cases of Pathological Anatomy, Amsterdam, J. H. de Bussy, Ltd., 1933, p. 58.
3. den Hartog, B. J. C.: Het chorionepithelioma malignum van den man en zijn biologische beteekenis, Thesis, Amsterdam, J. H. de Bussy, Ltd., 1933, p. 60.
4. Prym, P.: Spontanheilung eines bösartigen wahrscheinlich chorionepitheliomatösen Gewächses im Hoden, Virchows Arch. f. path. Anat. **265**: 239, 1927.

URETERO-INTESTINAL IMPLANTATION

GEORGE W. WRIGHT, M.D., AUGUSTA, GA.

Increasing interest in uretero-intestinal implantation might warrant a review of this case, especially because of the observations made at autopsy six months after operation.

C. H. F., a white man, aged 44, admitted to the surgical service of the University Hospital, Jan. 26, 1935, complained of the symptoms of an intractable cystitis of nine months'

Fig. 1.—Appearance of specimen after bowel had been filled with sodium iodide solution. Note that no reflux occurred of sodium iodide solution from the bowel into the ureters.

duration. The patient passed small amounts of cloudy, usually bloody, urine every ten to thirty minutes during the day and every hour or two at night. There was sharp pain radiating down the shaft of the penis during the act of micturition and

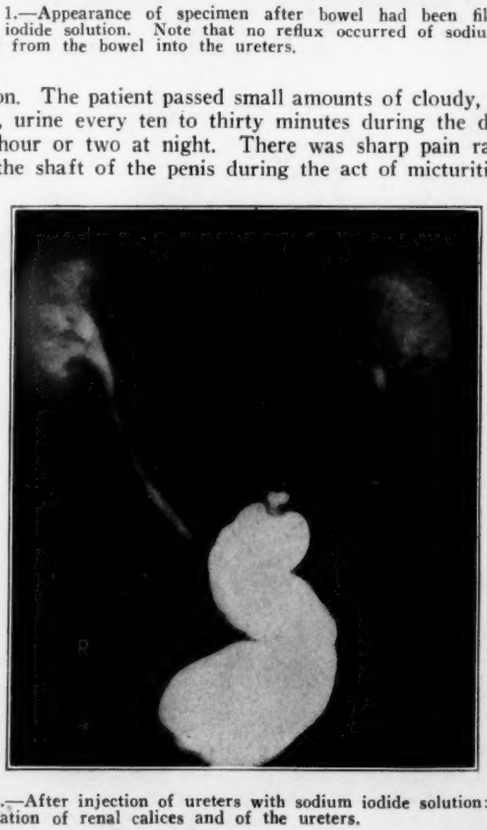


Fig. 2.—After injection of ureters with sodium iodide solution: moderate dilatation of renal calices and of the ureters.

sharp, burning perineal, deep pelvic and suprapubic pain immediately after voiding. All symptoms had become progressively worse, and at the time of admission there was constant strangury and dribbling of urine from the urethra. Loss of weight amounted to 35 pounds (16 Kg.).

From the Department of Surgery of the University of Georgia School of Medicine.

During the three months prior to admission the patient had experienced several attacks of pain in the region of the right kidney, accompanied by elevation of temperature.

The patient was fairly well developed but somewhat wasted; the facies was drawn and anxious, and the skin dry and pale. The weight was 120 pounds (54.4 Kg.), the blood pressure 104 systolic, 70 diastolic, the temperature 98.2 F., and the pulse 70. There was tenderness on pressure at the right costovertebral angle and in the suprapubic area. The lower pole of the right kidney was palpable and tender. Rectal examination revealed that the tone of the sphincter was good, and that the prostate was slightly enlarged and boggy.

The urine was a reddish brown and quite turbid because of the presence of gross amounts of blood and mucus. It showed a specific gravity of 1.028, and a three plus albumin. Microscopic examination revealed innumerable red blood cells, leukocytes and mucous shreds. Examination of the blood showed red blood cells 4,100,000, white blood cells 7,000 and hemoglobin 75 per cent. Nonprotein nitrogen, uric acid and sugar determinations of the blood were within normal limits. The Wassermann reaction was negative.

Cystoscopic examination showed severe cystitis with marked contraction of the bladder. An extensive, infiltrating new growth was found involving the trigon, the region of the left ureteral orifice, and extending upward toward the dome of the bladder. A large, fungating, ulcerated area occupied the center of the tumor. The right ureteral orifice was several times the usual size. The left ureteral orifice was not located. The right ureter was catheterized and a specimen from the kidney contained from 40 to 50 leukocytes, a few red blood cells and 1 or 2 granular casts per high power field. A section of tissue was removed from the new growth for biopsy. The diagnosis was infiltrating carcinoma of the bladder and right pyelonephritis.

Retrograde pyelography revealed considerable dilatation of the minor calices of the right kidney. Cystography, following the injection of 50 cc. of sodium iodide solution, showed considerable contraction of the bladder, its margins irregular and the lower 7 cm. of the right ureter filled and dilated. Excretory urography demonstrated moderate dilatation of the renal calices on both sides.

February 4, simultaneous, bilateral ureteral transplantation into the rectosigmoid was done according to the second method of Coffey,[1] size 12 F. ureteral catheters being used. Specimens of urine collected from each of the catheters on the day of operation contained from 50 to 75 leukocytes and an occasional granular cast per high power field. Convalescence was uneventful, the right catheter being removed on the tenth postoperative day and the left catheter on the eleventh day.

During the succeeding weeks and months the patient experienced complete relief from all symptoms existing prior to operation. He returned to work and gained 30 pounds (13.6 Kg.) but was not entirely willing to submit to cystectomy. Urine was passed from the rectum every four to six hours during the day and once at night, but there was no leakage of urine through the anus. Nonprotein nitrogen and uric acid determinations of the blood at regular intervals were within normal limits. Phenolsulfonphthalein excretion in the urine passed from the intestine in two hours was 40 per cent. Intensive roentgen therapy was administered at regular intervals for treatment of the bladder tumor.

August 8 an exploratory laparotomy was done because of intestinal obstruction of twelve hours' duration. Volvulus of the terminal ileum was found and released. Because its color appeared good, the involved section of intestine was not resected. A catheter enterostomy was done above the site of the volvulus. Death occurred on the fifth postoperative day.

At autopsy,[2] a few hours after death, the kidneys, ureters and segment of intestine into which the ureters had been transplanted were removed intact. The proximal end of the segment was occluded by a heavy gauze ligature, the intestine was then completely filled with sodium iodide solution and the distal end was ligated. Considerable pressure was made on the filled segment before a roentgenogram of the complete specimen (fig. 1) was obtained. There was no reflux of the radiopaque material into the ureters. The ureters were next injected with sodium iodide solution and a roentgenogram was obtained (fig. 2). Moderate dilatation of the calices of each kidney as well as moderate enlargement of the ureters was demonstrated. The dilatation of the calices appeared to be no greater than the moderate dilatation observed before ureterointestinal implantation.

The total weight of the two kidneys was 450 Gm. The capsule of each stripped with slight difficulty; the surfaces were slightly granular and presented many irregular indentations. The renal pelves and calices were of normal appearance. The cortical markings were distinct and regular, though the cortex was observed as slightly irregular in thickness. Microscopic examination revealed chronic pyelonephritis with moderate scarring. The colon and upper portion of the rectum above the site of ureteral implantation showed nothing unusual. Below the site of operation the rectum was somewhat dilated and the mucosa smoothed out. There was no evidence of ulceration. The bladder was markedly contracted but otherwise normal. Apparently the cause of death was necrobiosis of the terminal ileum with thrombosis of the mesenteric vessels, peritonitis and bronchopneumonia.

COMMENT

The case here reported is illustrative of the feasibility of uretero-intestinal implantation. The moderate degree of hydronephrosis said to occur following simultaneous bilateral operation in which ureteral catheters are necessarily employed was not observed in this case. Despite the existence of bilateral pyelonephritis prior to as well as at the time of operation, no gross renal damage was demonstrable at autopsy six months later. One might reasonably conclude that the condition of the kidneys had improved. Roentgen therapy and complete rest had apparently cured the bladder tumor.

753 Broad Street.

1. Coffey, R. C.: Transplantation of the Ureters into the Large Intestine, Surg., Gynec. & Obst. 47: 593-621 (Nov.) 1928.
2. Autopsy was performed by Dr. F. H. Van Wagoner of the Department of Pathology of the University of Georgia School of Medicine.

Council on Physical Therapy

THE COUNCIL ON PHYSICAL THERAPY HAS AUTHORIZED PUBLICATION OF THE FOLLOWING REPORTS. HOWARD A. CARTER, Secretary.

RADIOEAR DE LUXE HEARING AID, TYPE B-20, ACCEPTABLE

Manufacturer: E. A. Myers and Sons, Pittsburgh.

The Type B-20 Radioear De Luxe is an electrically operated, wearable, artificial hearing aid. The outfit consists essentially of a microphone, an amplifier, a battery supply, and an air or bone conduction receiver.

The microphone employs the simple telephone hook-up principle, modified to the manufacturer's design. The "intensifier" is an auxiliary amplifier which mechanically and electrically increases the amplitude of the electrical output of the microphone.

Radioear De Luxe Hearing Aid.

The power is obtained either from special hearing aid batteries or from three standard flashlight cells; for the latter cells, a battery case is supplied as standard equipment. The efficiency of the instrument is practically independent of either of these two sources of battery supply; it depends on the proper operating voltage, and this can be obtained either with the small flashlight cells or with the larger hearing-aid battery. The hearing-aid battery, because of its larger size, gives longer service per battery unit; but, if the smaller cells are changed when they depreciate below the recommended operating voltage, the smaller and less expensive flashlight cells are as efficient as the special battery.

The principle of operation is the same for either the miniature air conduction receiver or the bone conduction receiver, as in each case the electrical impulses are converted by the receiver into mechanical impulses. In the air conduction receiver this converted energy is applied in the conventional manner through the middle ear, and with the bone conduction receiver the mechanical structure of the receiver is such that satisfactory

results are secured by the application of the receiver unit to the mastoid or other cranial bones. The miniature air conduction receiver is held in place either by one of the Radioear adapters or by an individually molded ear piece made from a plaster impression of the ear. The bone conduction receiver is retained in operating position by a headband.

This unit was tested under actual conditions by an investigator selected by the Council, who considered the device satisfactory.

When special hearing aid batteries are sold for hearing units, the Council believes that the battery terminals should be standardized so that a battery, no matter where purchased, will fit all makes of hearing aids. Furthermore, the Council believes that, when these devices are prescribed or sold, the company should permit the patient to try them and be certain that they will fit his specific type of deafness under the particular circumstances in which he is most desirous of aid.

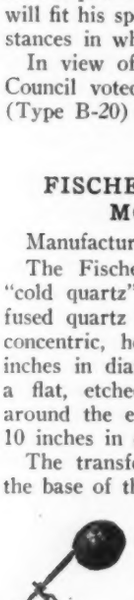
In view of the results of the investigation of this unit the Council voted to include the Radioear De Luxe Hearing Aid (Type B-20) in its list of accepted devices.

FISCHERQUARTZ ULTRAVIOLET LAMP, MODEL NO. 77, ACCEPTABLE

Manufacturer: The Fischer Corporation, Glendale, Calif.

The Fischerquartz Ultraviolet Lamp, Model No. 77, is a "cold quartz" ultraviolet generator and consists of a tube of fused quartz about 7 mm. in outer diameter, bent into three concentric, hexagonal rings, the outer one being about 4½ inches in diameter. Directly back of this grid ("burner") is a flat, etched, aluminum reflector, 8½ inches in diameter, around the edge of which is a flange of bright metal, about 10 inches in diameter and 1½ inches in depth.

The transformer used to operate the "burner" is placed in the base of the support of the lamp. The lamp in its reflector is attached to an extension arm and clamped to the upright support, which permits projecting the radiation of the lamp in various directions.



Fischerquartz Ultraviolet Lamp, Model No. 77.

In a physical laboratory acceptable to the Council, the erythemogenic ultraviolet radiation emitted by the lamp in its mounting was measured, in absolute units, by means of balanced thermopile and filters, in accordance with international procedure.

At a distance of 2 feet from the front edge of the quartz tube (the "burner"), the energy flux of wavelengths shorter than and including 3,130 angstroms was 1,050 ergs per square centimeter per second (105 μW/cm.^{2}). Of this amount about 97 per cent is contained in the strong resonance emission line of mercury vapor at 2,537 angstroms. Assuming an erythemogenic efficiency of 50 to 55 per cent at the 2,937 angstrom line the calculated time of exposure to produce a threshold (M. P. E.) erythema is about seven minutes.

Exposure of small areas (2 by 6 mm.) of the unpigmented inside upper arm at a distance of 2 feet from the lamp, for intervals of from five to twenty minutes, produced a decided reddening of the skin in seven minutes. The twenty-minute exposure was overexposed and sore to touch.

Since the erythema test was made on a skin of average pigmentation, it is evident that a blond-skinned person should not be exposed longer than about five minutes, at a distance of 2 feet from the burner of this type of lamp.

The intensity of the ultraviolet is above the minimum for acceptance adopted by the Council. With the understanding that this lamp is to be used for irradiation of the body (not applicable for cavity irradiation) for therapeutic purposes, under the guidance of a qualified physician, the lamp was recommended for acceptance by the Council's clinical investigator.

The Council wishes to make it clear that such a lamp has nothing in common with "sun lamps" and that it is no more applicable than other small therapeutic lamps, for home use under the directions of a physician.

In view of the favorable report on this unit, the Council on Physical Therapy voted to include the Fischerquartz Ultraviolet Lamp, Model No. 77, in its list of accepted apparatus.

Council on Pharmacy and Chemistry

ANNUAL MEETING OF THE COUNCIL ON PHARMACY AND CHEMISTRY

The Council on Pharmacy and Chemistry of the American Medical Association held its annual meeting at the Palmer House, Chicago, Friday and Saturday, March 13 and 14, 1936. Those present were:

Dr. David Barr
Dr. J. Howard Brown
Dr. E. M. Bailey
Dr. H. N. Cole
Dr. S. W. Clausen
Dr. C. W. Edmunds
Dr. Morris Fishbein
Dr. E. M. K. Geiling
Dr. Ernest E. Irons
Dr. Paul Nicholas Leech
Dr. G. W. McCoy
Dr. E. M. Nelson
Dr. W. W. Palmer
Dr. William C. Rose
Dr. Torald Sollmann

Prof. W. E. Anderson of Yale University and Dr. Olin West, General Manager, were also present.

Dr. Torald Sollmann was elected chairman of the Council and Dr. W. W. Palmer was elected vice chairman.

Among the many items discussed during the meeting, the following may be of interest both to physicians and to manufacturers:

Note of Appreciation to Dr. Reid Hunt.—The following communication, signed by all the members of the Council attending the meeting, was sent to Dr. Reid Hunt, who recently resigned.

The Council in session recalls the many years in which it was guided and inspired by your leadership. Your presence and wise counsel are greatly missed.

The Council sends greetings and best wishes for the coming years.

Federation of the Councils and Reorganization of the Work.—The Council discussed extensively the plans for the reorganization of the Council on Pharmacy and Chemistry, the Council on Physical Therapy and the Committee on Foods. The reorganization contemplates a federation of these groups particularly for administrative purposes and as a means of handling overlapping problems. The reorganization is not for the purpose of amalgamation. The plans of the headquarters building have been designed to take care of a more closely unified executive control. There has been appointed a Cooperative Committee on Policy, Rules and Procedure representing the three groups, whose purpose it is to make suggestions to the respective groups on problems of mutual interest. The committee is composed of Dr. E. M. Bailey, Dr. John S. Coulter, Dr. Morris Fishbein, Dr. E. E. Irons, Dr. Paul Nicholas Leech and, ex officio, Dr. F. C. Bing and Mr. Howard Carter. The Council on Pharmacy and Chemistry concurred in the recommendation of the Cooperative Committee on Policy, Rules and Procedure that certain recommendations be made to the Board of Trustees concerning the executive details of the work on reorganization.

Seals of the Councils.—The Cooperative Committee on Policy, Rules and Procedure recommended to the Council on Pharmacy and Chemistry and also to the other councils that the separate seals of the individual councils be retained. The Council adopted the recommendation.

Vitamins.—The Council considered the question of when and how much clinical data should be required before accepting vitamin preparations. The referee on vitamin preparations presented the following report:

Clinical data may not be required under the two following conditions: (1) when the product belongs to a class in which experience has already shown that a close correlation exists between biologic or chemical assays and clinical effects and (2) when the product is to be used only for purposes already established by clinical experience. Examples of such products are cod liver oil, halibut liver oil, viosterol (made in the usual way, but not ergosterol activated by novel methods or dissolved in novel solvents).

Clinical data should be required under the following conditions: 1. When biologic or chemical assays of the class of product cannot (as yet) be regarded as closely correlated with clinical effects, for example: (*a*) Certain concentrates or highly purified vitamin preparations not yet thoroughly tried in clinical practice, such as purified vitamin A, carotene, cevitamic acid, crystalline vitamin B_1. There is every reason to believe that such products will sooner or later be so well tried that clinical data may no longer have to be submitted, but that exact chemical, physical

and biologic standardization will suffice. But at the present time, exact clinical data on absorption, the best means for administration, stability, etc., are incomplete. (*b*) Certain foodstuffs fortified with vitamins. At the present time there is no convincing clinical evidence clearly justifying the claims made by some manufacturers for the activity ascribed to the several constituents of their foods.

2. Clinical data are also urgently indicated when vitamin products are advocated for use in treatment of conditions not clearly due to vitamin deficiency in the ordinary sense; for example, lowered resistance to infection, chronic arthritis, dental caries and rheumatic fever.

3. Complex artificial mixtures of vitamins together with other substances, often referred to as "shotgun vitamin preparations," should not be accepted without convincing clinical evidence of their value, and of the necessity for them.

4. Vitamin preparations made by new or unusual methods should be accepted only when biologic assay and clinical data establish their activity.

The Council adopted the report of the referee as an expression of the policy of the Council in reference to the clinical testing of vitamins in vitamin-containing preparations.

Series of Articles on Vitamin Preparations.—The Council voted that in cooperation with the Committee on Foods there be appointed an editorial committee under whose supervision there will be devised a contemplated series of articles on vitamins.

Allowable Claims for Vitamins.—The Council discussed the statement on the allowable claims for vitamins. This statement has been discussed elsewhere. (See THE JOURNAL, May 16, 1936, p. 1732.)

The Council also considered the matter of dosage of cod liver oil for infants and lay advertising of vitamin-containing preparations. (See THE JOURNAL, May 16, 1936, p. 1732.)

Liver Preparations.—The Council again considered the matter of the labeling and marketing of liver preparations. The consensus of the Council was that the published statement on labeling has been found satisfactory (THE JOURNAL, Oct. 19, 1935, p. 1269). In view of present evidence the Council maintained the opinion that the guinea-pig test that has been proposed by certain investigators is not practical for purpose of N. N. R. standards.

Articles on Glandular Physiology and Therapy.—It was reported that approximately 1,500 copies of the book "Glandular Physiology and Therapy" had been sold up to March first and that requests had been received from nine countries for privileges of translation.

A progress report was also made of the work being done by the Advisory Committee on the Nomenclature of Endocrine Principles. The reports formulated by this committee are to be published shortly. (See this issue, p. 1808.)

Therapeutic Research.—The chairman of the Committee on Therapeutic Research, Dr. C. W. Edmunds, reported in detail the work done by that group during the past year. The committee has continued to follow the previous policy of granting a sum generally between $100 and $200 for the purchase of special material as an aid in fostering research. The number of applications considerably exceeded the number of grants that could be made. The Council voted that the report of the committee be received and adopted and that appreciation be expressed to the members of the committee for the excellent way in which their work was carried out.

Aminophylline Preparations.—The minutes of the annual meeting of the Council for 1935 carried the following statement:

Advertising for Aminophylline.—The Council discussed the difficulty in determining the exact clinical status of Aminophylline. It felt that some advertising claims for the product carried overoptimistic implications.

After extensive discussion the Council adopted the following statement:

It has been claimed that in certain cases relief of pain has followed the use of theophylline preparations in cardiac conditions. The evidence that this was due to the theophylline is not convincing, and there is no evidence that the improvement, if it occurred, was due to coronary dilatation.

The claims in the advertising of accepted products of aminophylline will therefore be judged in accordance with this decision.

Sterility of Catgut Sutures.—The committee of the Council on Pharmacy and Chemistry in charge of the investigation of catgut sutures presented a progress report of the work under way. It is anticipated that the results of the investigation may be available within the next nine months.

The Nomenclature of Bacteriologic Products.—The Council voted (*a*) that the Council recognize as acceptable for the nomenclature of bacteria the generic names proposed in the final report of the committee of the Society of American Bacteriologists on characterization and classification of bacterial types (*J. Bact.* **5**:191, 1920); (*b*) that these names be used in New and Nonofficial Remedies and other publications of the Council; (*c*) that the use of "common names" not used in a generic sense, and the use of newer names for subdivisions of the genus Bacterium, be also permitted, and (*d*) that this action shall not preclude the use of names of products required in government licenses when used on package labels, package enclosures, advertising, reports of the Council, or as headings for descriptions of products in New and Nonofficial Remedies, provided such names are followed by names acceptable to the Council.

Ergot.—There was summed up for the Council the present situation with reference to the new alkaloid of ergot. The four investigators, each of whom independently discovered an alkaloid of ergot, published a statement (*Science* **83**:206 [Feb. 28] 1936) that their products were identical. In view of this, the Council deemed it necessary to coin a new nonproprietary and not therapeutically suggestive name for the ergot alkaloid: "Ergonovine." The action of the Council was published in THE JOURNAL, March 21, 1936, p. 1008.

Personal Endorsement Signatures.—On one or two occasions pharmaceutical houses have issued products bearing the personal endorsement signature of a physician. This was particularly flagrant in the case of an imported product. The Council therefore adopted the following amplification of rule 6:

The use of the personal signature of a physician, or the facsimile of such signature on the label or in advertising of products, is objectionable because it tends to create, through the implication of personal supervision, an exaggerated or misleading impression of therapeutic value, and articles so labeled or advertised are therefore not acceptable.

Injection Solutions for Hernia.—The referee in charge of the consideration of injection treatment of hernia reported the results of a questionnaire that had been sent to certain hospitals and individuals. The referee reported that the evidence submitted to date is not conclusive.

The Council voted that the referee prepare a report on the present status of the injection treatment of hernia for submission to the Council with a view to ultimate publication.

Hospital Practice for Interns.—It was decided to revise radically the book "Hospital Practice for Interns" during the summer of 1936.

Status of Bismuth Preparations.—The referee in charge of bismuth preparations presented the following statement:

There are many different types of bismuth preparations that are used, and with all of them the object of the injection is so to raise and maintain the level of metallic bismuth in the blood stream that it will function as an active antisyphilitic agent. With the water soluble preparations this will require the injections being given every day or every other day or every third day. With the insoluble agents and with the oil soluble preparations, on the other hand, this level is gained and can probably be maintained by injections once a week or every five days at the least.

To any one it is at once evident that the number of bismuth salts possibly therapeutically useful that might be tried for treating syphilis is legion. Thus the article on bismuth in the Jadassohn Handbuch of 1928 already mentioned 112 different or allied preparations. When one considers the many and varied preparations of bismuth, one may realize the temptation presented to the manufacturer to introduce another "new" bismuth compound. It is much like the problem of the barbiturates. It is true that now and then the pharmacologist may evolve a new product along a new line and furnish something worth while.

On the other hand, the referee can see great confusion and little help to general practice if the manufacturers continue simply to turn out "another bismuth compound." It is believed the Council should go on record as discouraging such practices unless the product produced is actually a new approach to the problem offering actual selective action, a higher chemotherapeutic quotient, or some other outstanding advantage over products already on the market.

The Council voted that after July 1, 1936, the Council consider no new bismuth preparations unless they show some distinctive advantages over those already accepted.

Labeling of Products Subject to Deterioration.—The Council had before it a preparation claimed to contain 4.05 per cent sodium hypochlorite when actually it was prepared with a

concentration of 4.50 per cent in order to allow for the deterioration during the year. The label in addition contains a statement that 12 per cent should be allowed for deterioration during the year.

The Council believed that the product should be labeled at whatever concentration it is proposed to make it at the time it is placed on the market and that on the label there be a supplemental statement of dating and rate of deterioration.

The Council adopted a motion that any products of this sort be labeled with a statement of the composition at the time it leaves the manufacturer, and is dated; furthermore, in case the product deteriorates or is subject to deterioration, that a supplemental statement be made as to the amount and/or rate of deterioration, either by indicating the percentage of deterioration per year or the actual minimum amount at the end of the year.

Reports of Committees on Publications of the Council on Pharmacy and Chemistry.—The Council considered the report of the Committee on Epitome of the Pharmacopeia and National Formulary and the Committee on Useful Drugs. It was announced that the Epitome had been revised in accordance with the new edition of the Pharmacopeia and the National Formulary and would be available approximately May 1.

New and Nonofficial Remedies has also been revised to bring it in accordance with the new official compendium. It should be available about the middle of June.

The manuscript for Useful Drugs has been sent to the printer and the book should be available in early summer.

REPORTS OF THE COUNCIL

Nomenclature of Endocrine Principles: I.

THE PRESENT UNSETTLED STATE OF ENDOCRINOLOGIC NOMENCLATURE HAS BEEN THE CAUSE OF INCREASING CONFUSION IN RECENT YEARS. IN AN EFFORT TO REMEDY THIS DEPLORABLE SITUATION, THE COUNCIL SOLICITED THE COOPERATION OF A NUMBER OF EXPERTS WHO HAVE MADE FUNDAMENTAL CONTRIBUTIONS TO GLANDULAR PHYSIOLOGY. THIS GROUP, TERMED THE ADVISORY COMMITTEE ON THE NOMENCLATURE OF ENDOCRINE PRINCIPLES, IS COMPOSED OF THE FOLLOWING: DRS. EDGAR ALLEN, WILLARD M. ALLEN, J. B. COLLIP, G. W. CORNER, E. A. DOISY, E. T. ENGLE, H. M. EVANS, R. T. FRANK, F. L. HISAW, F. C. KOCH, LEO LOEB, G. F. MARRIAN, C. R. MOORE, OSCAR RIDDLE, P. E. SMITH AND C. W. TURNER; M. S. BISKIND, CORRESPONDING SECRETARY. ON THE RECOMMENDATION OF THIS COMMITTEE, THE COUNCIL HAS AUTHORIZED PUBLICATION OF THE FOLLOWING REPORT. IT IS ANTICIPATED THAT OTHER REPORTS ON RELATED TOPICS WILL BE PUBLISHED IN THE NEAR FUTURE.

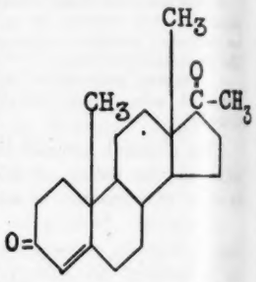
THE COUNCIL DESIRES TO EXPRESS ITS SINCERE APPRECIATION TO THE MEMBERS OF THE ADVISORY COMMITTEE FOR THEIR WILLING COOPERATION.

PAUL NICHOLAS LEECH, Secretary.

THE NOMENCLATURE OF THE CORPUS LUTEUM HORMONE

1. The Advisory Committee on the Nomenclature of Endocrine Principles has considered the question of choosing an appropriate name for the one definitely established hormone of the corpus luteum. This hormone is defined and quantitatively estimated by its property of acting on the rabbit's uterus to produce histologic changes (progestational changes) resembling those observed during early pregnancy and pseudopregnancy.[1] It has been demonstrated and agreed that the chemical structure of this substance is represented by the formula given herewith, and that no other natural substance has as yet been found having the same physiologic properties.

2. Crude extracts containing the hormone were produced in 1928 by Hisaw, Meyer and Weichert[2] of the University of Wisconsin, and in 1929 by Corner and W. M. Allen[3] of the University of Rochester. The quantitative test now in general use was published by Corner and Allen at this time. Subsequent steps of purification were made by W. M. Allen[4] (1930, 1932), by Fevold, Hisaw and Leonard[5] (1932) and by Allen and Meyer[6] (1933) and the preparation of the hormone in crystalline form was announced in 1934 by Butenandt, Westphal and Cobler[7] of Danzig, by Slotta, Ruschig and Blanke[8] of Breslau and by W. M. Allen and Wintersteiner[9] of Rochester and New York, respectively. Complete determination of the structural formula and the earliest method of artificial preparation were published by Butenandt[7] in 1934.



Progesterone $C_{21}H_{30}O_2$

3. A long period elapsed between the demonstration by Ludwig Fraenkel[10] in 1903 and by Leo Loeb[11] in 1907 that the corpus luteum has an endocrine function and the preparation of active extracts. During this time crude preparations of the corpus luteum for oral use were in vogue and various names such as lutein were current, were made the basis of trade names, and crept into the medical dictionaries.

4. To indicate and emphasize the existence in the early crude extracts of an active substance having the property defined, the name progestin, coined by G. W. Corner, was introduced by W. M. Allen[4] in 1930. The name corporin, coined by F. L. Hisaw,[5] appears to have been used in print first in 1932.

Progestin. Etymology: *pro-,* prefix meaning in behalf of or favoring; *gestatio,* gestation; and *-in.* The word signifies a chemical substance useful in gestation. It is defined in the American Illustrated Medical Dictionary as "a hormone contained in the corpora lutea, whose function is to prepare the endometrium for the reception and development of the fertilized ovum." The word has been widely used in American scientific and clinical literature and in England. Spelled *progestine,* it has had moderate use in France. In Germany it has been little used.

Corporin. Etymology: from *corpus,* body, and *-in,* suffix indicating a chemical substance. The word therefore signifies a substance having to do with a body (i. e., the corpus luteum). It is defined in the American Illustrated Medical Dictionary as "same as progestin." The word has been used to some extent in the American literature but appears not to have been used in other countries.

5. Since the determination in 1934 of the chemical nature of the hormone, American writers have usually continued to refer to the pure substance by the name progestin. Slotta and his co-workers, however, introduced the word luteosterone.

Luteosterone. Etymology: from *luteum,* yellow, referring to the corpus luteum; *sterol,* name of a class of chemical substances; and the suffix *-on,* indicating that the particular substance is a ketone. The

1. Members of the Committee have pointed out that the corpus luteum has functions other than the uterine effects; it is concerned in regulation of the periodicity of the sexual cycle (Leo Loeb) and in stimulation of the growth of the lobulo-alveolar system of the mammary gland (Turner). While the activity of the crystalline hormone in these respects is not entirely clear, it appears that the primary effect is progestational.

In certain species (e. g., guinea-pig, gopher) a special principle occurs in the corpus luteum, designated "relaxin" by Hisaw, which leads to relaxation of the pelvic ligaments before parturition. The Committee has not considered a name for this principle.

2. Weichert, C. K.: Production of Placentomata in Normal and Ovariectomized Guinea-Pigs and Albino Rats, Proc. Soc. Exper. Biol. & Med. **25:** 490 (March) 1928. Hisaw, F. L.; Meyer, R. K., and Weichert, C. K.: Inhibition of Ovulation and Associated Histological Changes, Proc. Soc. Exper. Biol. & Med. **25:** 754 (June) 1928.

3. Corner, G. W., and Allen, W. M.: Physiology of the Corpus Luteum: II. Production of a Special Uterine Reaction (Progestational Proliferation) by Extracts of the Corpus Luteum, Am. J. Physiol. **88:** 326 (March) 1929.

4. Allen, W. M.: Physiology of the Corpus Luteum: V. The Preparation and Some Chemical Properties of Progestin, a Hormone of the Corpus Luteum Which Produces Progestational Proliferation, Am. J. Physiol. **92:** 174 (Feb.) 1930; The Preparation of Purified Progestin, J. Biol. Chem. **98:** 591 (Nov.) 1932.

5. Fevold, H. L.; Hisaw, F. L., and Leonard, S. L.: Hormones of the Corpus Luteum: The Separation and Purification of Three Active Substances, J. Am. Chem. Soc. **54:** 254 (Jan.) 1932. Fevold, H. L., and Hisaw, F. L.: Purification of Corporin, Proc. Soc. Exper. Biol. & Med. **29:** 620 (Feb.) 1932.

6. Allen, W. M., and Meyer, R. K.: The Quantitative Separation of Progestin from Oestrin in Extracts of the Corpus Luteum, Am. J. Physiol. **106:** 55 (Oct.) 1933.

7. Butenandt, Adolf; Westphal, U., and Cobler, H.: Ueber einen Abbau des Stigmasterins zu Corpus-luteum-wirksamen Stoffen; ein Beitrag zur Konstitution des Corpus-luteum-Hormons, Ber. d. deutsch. chem. Gesellsch. **67:** 1611, 1934. Butenandt, Adolf, and Westphal, U.: Ueber die Darstellung des Corpus-luteum-Hormons aus Stigmasterin; die Konstitution des Corpus-luteum-Hormons, ibid. **67:** 2085 (Dec.) 1934.

8. Slotta, K. H.; Ruschig, H., and Blanke, E.: Reindarstellung der Hormon aus dem Corpus luteum: III. Konstitution von Luteosteron C und D (mit Bemerkungen von A. Neuhaus), Ber. d. deutsch. chem. Gesellsch. **67:** 1647, 1934.

9. Allen, W. M., and Wintersteiner, Oskar: Crystalline Progestin, Science **80:** 190 (Aug. 24) 1934. Wintersteiner, Oskar, and Allen, W. M.: Crystalline Progestin, J. Biol. Chem. **107:** 321 (Oct.) 1934.

10. Fraenkel, Ludwig: Die Funktion des Corpus luteum, Arch. f. Gynäk. **68:** 438, 1903.

11. Loeb, Leo: Ueber die experimentelle Erzeugung von Knoten von Deciduagewebe in dem Uterus des Meerschweinchens nach stattgefundever Copulation, Zentralbl. f. allg. Path. u. path. Anat. **18:** 563 (July 31) 1907; The Production of Deciduomata and the Relation Between the Ovaries and the Formation of the Decidua, J. A. M. A. **50:** 1897 (June 6) 1908; The Experimental Production of the Maternal Placenta and the Function of the Corpus Luteum, ibid. **53:** 1471 (Oct. 30) 1909; Beiträge zur Analyse des Gewebewachstums, Arch. f. Entwicklsmech. **27:** 89 (Jan. 12) 1909, **31:** 456 (Feb. 14) 1911, **32:** 67 (May 16) 1911.

word signifies therefore the ketone of a sterol derived from the corpus luteum. Philologists unfamiliar with its history might, however, interpret it to mean simply a yellow ketosterol.

6. In the spring of 1934 the European biochemists who had so largely taken part in the solution of the chemical problems concerned pointed out that in their opinion the word progestin is not sufficiently indicative of the exact chemical structure of the substance to be used conveniently in the literature of organic chemistry. It appears, moreover, to have been adopted as a manufacturer's name for certain partially purified commercial extracts, sold in Europe. After correspondence and personal conference, the following letter[12] was drawn up by Butenandt, and signed as noted herewith. Wintersteiner also gave assent to the document, although his name does not appear among the signers. The letter appeared in several scientific publications in England, Germany and the United States as indicated.

During the past year the progestational hormone has been isolated from the corpus luteum in pure form and its constitution established. Heretofore two different names have been used for this hormone in the literature (progestin, luteosterone). For the sake of international uniformity we agree to use hereafter in the scientific literature only the name *progesterone* for the pure hormone. As is known, the pure hormone exists in two different forms, one melting at 128° (uncorr.) and the other at 121° (uncorr). The higher melting form (Compound B of Wintersteiner and Allen [1934] and Compound C of Slotta, Ruschig and Fels [1934]) will be known as *α*-progesterone and the lower melting compound (Compound C of Wintersteiner and Allen and Compound D of Slotta, Ruschig and Fels) as *β*-progesterone. We hope that these names will be generally accepted in the scientific literature.

Breslau, Germany;	W. M. ALLEN.
Danzig-Langfuhr;	A. BUTENANDT.
Rochester, N. Y.	G. W. CORNER.
	K. H. SLOTTA.

7. On the recommendation of the Advisory Committee, the Council adopted the following terms: (1) *progesterone* to indicate the chemically pure substance having the structure and properties named in paragraph 1; (2) *progestin* as a general term to indicate the substance (and other chemically allied substances having similar action, in case any such compounds are subsequently discovered) without reference to the state of chemical purity, for convenience in clinical and biologic speech and writing.

NEW AND NONOFFICIAL REMEDIES

THE FOLLOWING ADDITIONAL ARTICLES HAVE BEEN ACCEPTED AS CONFORMING TO THE RULES OF THE COUNCIL ON PHARMACY AND CHEMISTRY OF THE AMERICAN MEDICAL ASSOCIATION FOR ADMISSION TO NEW AND NONOFFICIAL REMEDIES. A COPY OF THE RULES ON WHICH THE COUNCIL BASES ITS ACTION WILL BE SENT ON APPLICATION.

PAUL NICHOLAS LEECH, Secretary.

SCARLET FEVER IMMUNITY TEST.—(See New and Nonofficial Remedies, 1935, p. 411).

United States Standard Products Company, Woodworth, Wis.

Scarlet Fever Streptococcus Toxin for the Dick Test.—Prepared by the method of Drs. Dick under U. S. patent 1,547,369 (July 28, 1925; expires 1942) by license of the Scarlet Fever Committee, Inc. Marketed in packages of one ampule containing sufficient toxin for ten tests, and in packages of one vial containing sufficient toxin for 100 tests.

MERCURY SALICYLATE (See New and Nonofficial Remedies, 1935, p. 308).

The following dosage form has been accepted:

Ampules Mercury Salicylate, 1 grain (0.065 Gm.) Suspended in Oil, 1 cc.: Each 1 cc. ampule contains mercury salicylate, 1 grain (0.065 Gm.), quinine and urea hydrochloride, 0.05 Gm., anhydrous wool fat 0.1 Gm., distilled water 0.05 cc. and Wesson oil (maize oil) to make 1 cc.

Prepared by the Cheplin Biological Laboratories, Inc., Syracuse, N. Y.

PROTARGOL (See New and Nonofficial Remedies, 1935, p. 416).

The following dosage form has been accepted:

Granules Protargol Compound.—Protargol, 33⅓ per cent, and urea, 66⅔ per cent. The urea is added because of its effect of increasing the solubility but is otherwise inert.

12. Allen, W. M.; Butenandt, Adolf; Corner, G. W., and Slotta, K. H.: Nomenclature of Corpus Luteum Hormone, Science **82:** 163 (Aug. 16) 1935; Nature **136:** 303 (Aug. 24) 1935; Zur Nomenklatur des Corpus luteum-Hormons, Helv. Chim. Acta **18:** 134, 1935; Klin. Wchnschr. **14:** 1182, 1935; Ztschr. f. physiol. Chem. **235:** 1, 1935; Ber. d. deutsch. chem. Gesellsch. **68:** 1746, 1935.

Committee on Foods

ACCEPTED FOODS

THE FOLLOWING PRODUCTS HAVE BEEN ACCEPTED BY THE COMMITTEE ON FOODS OF THE AMERICAN MEDICAL ASSOCIATION FOLLOWING ANY NECESSARY CORRECTIONS OF THE LABELS AND ADVERTISING TO CONFORM TO THE RULES AND REGULATIONS. THESE PRODUCTS ARE APPROVED FOR ADVERTISING IN THE PUBLICATIONS OF THE AMERICAN MEDICAL ASSOCIATION, AND FOR GENERAL PROMULGATION TO THE PUBLIC. THEY WILL BE INCLUDED IN THE BOOK OF ACCEPTED FOODS TO BE PUBLISHED BY THE AMERICAN MEDICAL ASSOCIATION.

FRANKLIN C. BING, Secretary.

DURKEE'S BRAND OLEOMARGARINE
DURKEE'S BO-KAY BRAND OLEOMARGARINE
DINNER BELL BRAND OLEOMARGARINE
MY OWN BRAND OLEOMARGARINE
TASTI-BRAND OLEOMARGARINE
TROCO BRAND OLEOMARGARINE

Manufacturer.—Durkee Famous Foods, Inc., Chicago.

Description.—Oleomargarines prepared from refined coconut oil, pasteurized cultured milk, refined cottonseed oil, salt, monostearyl sodium sulfoacetate, and sodium benzoate (0.1 per cent).

Manufacture.—Essentially the same as described for Durkee's Vegetable Oleomargarine (THE JOURNAL, Aug. 3, 1935, p. 369).

Analysis (submitted by manufacturer).—

	per cent
Moisture	15.4
Ash (other than sodium chloride)	0.1
Sodium chloride	3.2
Fat (ether extract)	80.3
Protein (N × 6.25)	0.5
Lactose	0.6
Sodium benzoate	0.1
Glycerin derivative	0.4

Calories.—7.3 per gram; 207 per ounce.

Claims of Manufacturer.—For use as a bread spread and in cooking, baking and frying.

CELLU BRAND PEAS, WATER PACKED

Distributor.—Chicago Dietetic Supply House, Inc., Chicago.

Packer.—Valders Canning Company, Valders, Wis.

Description.—Canned peas, packed in water.

Manufacture.—Selected peas are harvested at the desired degree of maturity, vined, washed, graded for size, inspected, blanched, again washed, and automatically filled into cans. The cans are filled with water, sealed and processed.

Analysis (submitted by distributor).—

	per cent
Moisture	88.7
Total solids	11.3
Ash	0.4
Fat (ether extract)	0.2
Protein (N × 6.25)	3.1
Crude fiber	0.8
Starch (diastase method)	5.4
Carbohydrates other than crude fiber (by difference)	6.8

Calories.—0.4 per gram; 11 per ounce.

Claims of Manufacturer.—Small, sifted, young, tender peas, packed without sugar or salt. For use in special diets in which sugar or salt is proscribed, or in quantitative diets of calculated composition.

AVONDALE FARMS PASTEURIZED HOMOGENIZED MILK

Distributor.—Avondale Farms, Knoxville, Tenn.

Description.—Bottled, pasteurized, homogenized milk.

Preparation.—Milk obtained from tuberculin tested herds under government and company inspection is pasteurized by the standard holding methold (63 C. for thirty minutes), homogenized at 3,000 pounds pressure, cooled to 3 C. and automatically filled in bottles by the usual procedure (THE JOURNAL, Sept. 1, 1934, p. 681).

Analysis.—Standardized to contain not less than 4.2 per cent of milk fat.

Claims of Manufacturer.—The cream does not separate. The curd formed in the stomach is softer than that from unhomogenized milk.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

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SATURDAY, MAY 23, 1936

THE KANSAS CITY SESSION

The annual session of the American Medical Association, held in Kansas City last week, was extraordinarily successful from many different points of view. The attendance was well beyond that anticipated. The weather during the entire week was ideal. The new municipal auditorium is conveniently arranged, beautiful in its appointments, and impressive in its appearance. The physicians and the people of Kansas City provided a welcome and an intimate type of hospitality quite distinctive for an occasion of this character.

The House of Delegates was particularly concerned in this session, as will be seen from its proceedings, with the relationships of physicians to hospitals, with the new experiments that are being undertaken in changing the nature of medical practice, with the status of prevention of conception, and with raising still further the standards of medical education and medical ethics. Its sessions were harmonious; the Board of Trustees and executives of the Association received special commendation for their efficiency in the conduct of the affairs of the Association. These affairs are ever widening in their scope and in the extent of the service rendered to the medical profession.

The opening general meeting was unique in several ways. First, the President-Elect who was to have been installed was unfortunately so seriously ill as to be unable to attend the meeting. He was therefore, by special action of the House of Delegates, installed in absentia. The governors of two great states, Missouri and Kansas, attended in person and delivered messages of welcome. Governor Park of Missouri spoke, briefly welcoming the visiting physicians. The great arena of the auditorium was filled with some 12,000 to 14,000 listeners who stood unanimously in response to a thrilling announcement by Governor Alfred M. Landon indicating his opposition to regimentation of the medical profession. Governor Landon said in part:

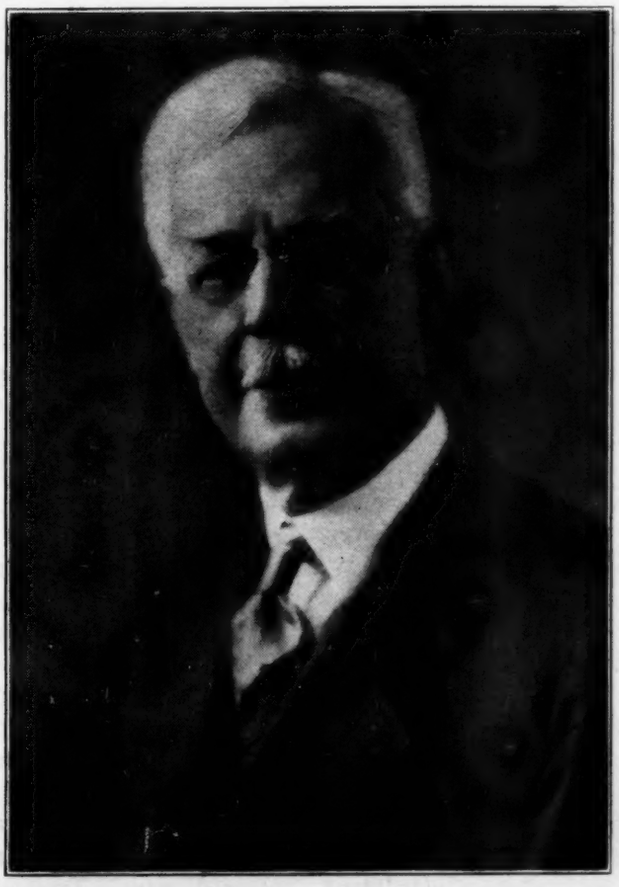
> From the earliest days the general practitioner in America was, first of all, an individualist. The circumstances of his work made him that; but it was a fortunate situation for the people who needed medical care. It meant that they could have personal ministration, that there was an intimate relationship between physician and patient and that the sufferer became at once, and remained, the object of very special attention.
>
> Down to the present day American medicine has continued to be primarily individualistic. It is chiefly on that basis that it is to be distinguished from medicine in many foreign countries. I know very well the arguments for an extension of the best of medical service to all groups of the American people. It is a worthy cause. It is enlisting the attention of the best brains of your profession. I have confidence that you will work it out.
>
> But medicine will not willingly be made the servile instrument of politicians or the instrument of domineering bureaucracy. I predict that the typical American physician and organized medicine as a whole will at no time be ready for any scheme of regimentation, for any system of impersonalized medicine which is totally alien to the best traditions of the American practitioner and of the profession as a whole.
>
> The American practitioner will not be a party to destruction of that individual, personal service which has been the occasion of a special and justifiable pride. Whatever further advances are made in the broadening of medical service—and there will be an abundance of them—will be made, so far as he is concerned, in accordance with the fundamental conditions of previous achievements.
>
> I want especially to approve the efforts for meeting its responsibilities of the Jackson County Medical Society as mentioned by its president. A nation that can maintain and even elevate its medical standards and the state of public health in the trying years of a prolonged depression needs to make no apology for the quality and the reach of its medical facilities.
>
> That condition itself is a tribute to the American physician in his continued, unselfish devotion to a worthy task. May you long abide in your loyalty to the ideal of individual, personal ministration.

The general scientific meetings attracted great audiences, particularly the lecture by Lord Horder on thyrotoxicosis and the motion picture exhibition by Dr. Joseph B. De Lee. The latter drew a capacity audience. The distinguished guests of the Association from abroad included not only Lord Horder but also Leon Ascher of Switzerland and Wolfgang Heubner of Berlin. The meetings of the various sections took place in beautiful and well appointed halls. Many physicians remarked on the utility and practical character of the contributions. As in previous years, the Scientific Exhibit produced a great number of demonstrations. The types of material exhibited were varied, and throngs of physicians assembled in the various booths in such numbers as to block the aisles completely on many occasions. The awards of medals and certificates of merit indicate the character of the scientific contributions.

A special feature of the Kansas City session which attracted attention was the efficient manner in which the local organization had bound the meeting closely into the lives of the public. Every service club, educational organization and forum in the city opened its doors to medical speakers. There were local and national broadcasts in profusion, indicating to the public the advances in medicine. Furthermore, the press, both local and national, surpassed all previous efforts in its coverage, the press representatives in attendance including not only some twenty-four reporters and photographers from the local newspapers but also three

representatives of the Associated Press, three from the United Press, one from the International News, one from Universal Service, one from Science Service, one from the North American Newspaper Alliance, one from the New York *Herald Tribune*, one from the New York *Times*, one from the Philadelphia *Inquirer*, one from the Chicago *Tribune*, and several representing other periodicals.

The Woman's Auxiliary registered a great attendance and held numerous sessions, both social and organizational. The social events included the special dinner for the House of Delegates and officers on Monday night, the opening general meeting Tuesday night, innumerable fraternity and alumni meetings on Wednesday, and the "Bring Your Husband Dinner" and annual reception and dance on Thursday night. All these events had capacity attendance. They were perfectly planned, exactly timed and conducted with a facility which indicated the experience of the Kansas City profession in the conduct of medical meetings. Indeed, the outstanding feature of the session was the manner in which the Kansas City medical profession *en masse* united in doing its utmost to make the session a success. The local committees were constantly in evidence, moving the affairs with precision and making the stranger feel at home within their gates. The departing physicians expressed almost universal satisfaction. Many already await an opportunity to return and to partake again of one of the most friendly and efficient receptions ever accorded to any great convention of the American Medical Association.



JOHN HOWELL JANEWAY UPHAM, M.D.
PRESIDENT-ELECT OF THE AMERICAN MEDICAL ASSOCIATION

SMALLPOX IN THE UNITED STATES

According to reports from twenty-six countries to the League of Nations from 1921 to 1930, the United States showed the second highest reported attack rate of smallpox. This is a striking and, at first thought, a wholly unexpected observation. The statement by itself is somewhat misleading, as brought out in a study of the incidence and fatality of this disease.[1] The apparent high incidence in this country is due in part to a better system of reporting cases in the United States than in other countries and in part to the fact that the strain of smallpox endemic in this country is of a mild variety which is difficult to control because of the lack of general interest in prophylactic treatment. As might be expected, in countries in which the malignant form predominates, the stimulus to secure general protection by vaccination is greater and hence the control of the disease is more effectively accomplished. Although the incidence of smallpox in this country is high, the fatality rate in comparison with that of most other countries is exceedingly low. Nevertheless, the high attack rate indicates the need of a critical appraisal of the situation and the formulation of plans for more adequate control.

The comparatively high incidence of smallpox in this country, according to the survey referred to, is due primarily to the relatively low endemic vaccination rate. The mild type of the disease is thus permitted to maintain itself. This explanation obviously suggests a procedure for the control of the condition; namely, a general increase in vaccination against smallpox. Experience has demonstrated that vaccination is exceedingly effective. As is shown in the League of Nations review, the well vaccinated countries have low attack rates, whereas the opposite is true in poorly vaccinated countries. Apparent exceptions to this rule are found in the cases of Australia and New Zealand. However, the low incidence of smallpox in these countries can be explained by their geographic isolation and constant vigilance at the ports of entry to prevent the introduction of the disease from other countries. The apparent efficacy of this measure suggests that the procedure should be more vigorously practiced in this country. Careful investigations here have shown that epidemics of the malignant form of smallpox have been started in many instances by infected immigrants, particularly by smuggled labor from Mexico and other countries. Also the vagrant, migratory laborer and people from unvaccinated rural regions have been influential in the spread of smallpox within the boundaries of our own country. An excellent example of this is seen in the increased incidence

1. Hedrich, A. W.: Changes in the Incidence and Fatality of Smallpox in Recent Decades, Pub. Health Rep. **51**: 363 (April) 1936.

of smallpox during times of prosperity when there is an intensified migration to industrial centers from rural districts. The opposite tendency may account in some measure for the decline of smallpox during the recent economic depression.

The foregoing facts unquestionably indicate the need for a more widespread vaccination against smallpox in this country and for greater vigilance not only to minimize the spread of the disease from section to section but particularly to prevent the entrance of the malignant form from foreign countries.

THE EVOLUTION OF DISEASES

The life history of a disease is often like that of a human being. Its weak or lusty infancy is at first greeted with mild speculation. As it gradually grows it develops the proportions of a young adult and abundant vigor. Finally, after varying periods of strength, the old age and decline of a disease may begin to occur. In some instances it finally disappears. Riesman [1] has recently discussed a number of the dead or dying diseases. Among those which are no longer mentioned is the so-called sweating sickness, which apparently first appeared in England after the battle of Bosworth in 1485. It caused a short rigor followed by severe perspiration, headache, stupor and epigastric pains. The whole body was bathed with fetid perspiration. The crisis was over within the short space of forty-eight hours. Scarcely one in a hundred escaped. Several epidemics of this strange disease seem to have swept over England in the reign of Henry VIII. It apparently did not spread to Scotland, Ireland or Calais, but Hamburg was visited by the sweating sickness in 1529. Within twenty-two days, 1,100 inhabitants of Hamburg died.

Another disease which is now not recognized, at least by the same name, is the petechial fever of Italy. It was described by Fracastoro as the first plague of the kind to occur in that country. Those who were affected with this condition "lay upon their backs with an oppressed brain, blunted senses, delirious, with bloodshot eyes." Between the fourth and the seventh day of this illness, purple spots like flea bites or larger broke out. It was not especially contagious and did not seem to be carried by fomites. Tarantism was another curious disease of the Middle Ages which is now apparently nonexistent. It was believed by many to result from the bite of a spider. A few hours after the bite "the patient is seized with great difficulty of breathing, a heavy anguish of heart, a prodigious sadness, his voice is sorrowful and querulous, his eyes disturbed." Often after the violent symptoms were over the patients were affected with a peculiar kind of melancholy, which continued until "by dancing or singing or change of air those violent impressions are quite extricated from the blood and the fluid of the nerves." What this strange condition was no one even today seems quite certain. It has been suggested by Professor Sigerist, however, that tarantism was a revival of the Dionysiac cult of Magna Graecia.

The dancing mania, which also broke out in various regions throughout the Middle Ages, is now no longer common. Sometimes St. Vitus' dance or chorea was probably at the root of the term; much more often mass hysteria was probably responsible; sometimes it may have been due to diseases that find no counterpart today.

Many other diseases which a few centuries ago must be considered to have been in their prime are still present today but in attenuated form, lacking much of the highly fatal and spreading qualities which they once possessed. The decline in these diseases is probably due to several factors, including improved sanitation and medical knowledge, but also probably to the natural life history of the disease. The bubonic plague, which spread over Europe as the black death on many occasions, has not for some centuries reached such serious proportions in civilized countries. Defoe's Journal of the Plague Year, the literary as well as the medical qualities of which recommend it to all medical men, illustrates only too well the severity which a disease can take in its prime. It is possible, furthermore, that the plague may yet show sufficient life to invade civilized communities once more in epidemic proportions. Leprosy, which in the Middle Ages was one of the most dread diseases, has in most countries become a relative rarity. It will probably never again terrify the world as it has in the past. Chlorosis, on which Fowler [2] has recently written an obituary, is no longer the common disease it used to be. With present knowledge of etiologic factors in chlorosis, it is especially interesting to read of the old ideas that this condition was due to love sickness. Ergotism, or St. Anthony's fire, which was due to the eating of bread made from diseased grain, is now almost extinct.

In relatively recent years there has been definite evidence of a decline in frequency of a large group of other diseases. Typhoid, tuberculosis, diphtheria and probably syphilis are less frequent or less generally virulent than some one or two hundred years ago. Part of this change must be assigned to sanitary measures and improved treatment, but part, especially for syphilis and probably diphtheria, may be due to increased race resistance and natural decline of virulence, which might be expected after vigorous flourishing for several centuries.

Among the new diseases, at least from the standpoint of their definite recognition, are psittacosis, tularemia and spirochetal jaundice. It is yet impossible to say whether these and like diseases will die in infancy or attain full growth with wide invasion. It is perhaps possible to say that, of these, spirochetal jaundice is the most likely to become widespread.

1. Riesman, David: Deceased Diseases, Ann. Med. Hist. **8**: 160 (March) 1936.

2. Fowler, W. M.: Chlorosis—An Obituary, Ann. Med. Hist. **8**: 168 (March) 1936.

Current Comment

JOHN HOWELL JANEWAY UPHAM, PRESIDENT-ELECT

When Dr. John Howell Janeway Upham was elevated to the position of President-Elect of the American Medical Association by the House of Delegates at the session in Kansas City, it recognized a career of distinguished service in organized medicine marked by devotion and success. The President-Elect was born at Trenton, N. J., Aug. 12, 1871. After his preliminary education he attended the University of Pennsylvania, where he received the certificate of biology in 1891. His medical degree was awarded in 1894 in a class which has contributed other notable members to high places in the American Medical Association. Following an internship at the Johns Hopkins Hospital in Baltimore from 1894 to 1896, Dr. Upham took up the practice of medicine at Columbus, Ohio. He married Alice Lee of that city in June 1897. He served as instructor of medicine at Starling Medical College from 1897 to 1902 and during that time took postgraduate work at Prague, Leipzig and Berlin. From 1902 to 1908 he was associate professor of medicine in Starling (Ohio) Medical College and then became professor of medicine and clinical medicine. This position he held until 1914, when he was appointed professor of medicine at Ohio State University College of Medicine. Since 1927 he has been dean of the medical school of Ohio State University. In civic affairs he has occupied the position of member of the Ohio State Medical Board since 1913. In 1922 he was on the Advisory Committee of the American Red Cross. In the Ohio State Medical Association he served as secretary-editor from 1907 to 1913, president in 1914-1915, and since that time has been chairman of the Legislative Committee. In the American Medical Association Dr. Upham served on the Judicial Council for a term beginning in 1922, and he was for twelve years a member of the Board of Trustees, becoming chairman of the Board in 1933. In all the affairs of the Association in which he has taken such a prominent part he has made an efficient contribution, giving freely of his time and his ability. No election to the highest office in the gift of the Association could be more fitting than this recognition of John H. J. Upham.

CHARLES GORDON HEYD, M.D.
VICE PRESIDENT OF THE AMERICAN MEDICAL ASSOCIATION

J. TATE MASON AND THE VICE PRESIDENT, CHARLES GORDON HEYD

Over the success, the brilliance and the happiness of the Kansas City session lay the dark shadow of the serious illness of the President-Elect—now installed as President of the American Medical Association—Dr. James Tate Mason of Seattle. Culminating a year in which he traveled widely and spoke much on behalf of organized medicine, he became ill with a severe involvement of his circulatory system, resulting eventually in multiple emboli which occluded blood vessels in the legs and also in the brain. At the time of this writing he has already suffered gangrene of the left extremity requiring its removal, complete paralysis of the left side and a gradually advancing gangrene of the right leg and thigh. Notwithstanding this terrible illness as well as deaths among members of his family, he sent encouraging messages to the House of Delegates which will be found in its proceedings, and he telegraphed his personal appointments to fill vacancies in the councils of the Association. In view of the serious character of his illness and the certainty that the Vice President under the By-Laws of the Association will be compelled to officiate in the place of the President during most of the term, the choice of a Vice President was especially significant. For this position the House of Delegates chose Charles Gordon Heyd of New York, at present professor of surgery in the Post-Graduate Medical School and Hospital of Columbia University, consultant surgeon at the Women's Hospital and trustee of the Medical Society of the County of New York, and a distinguished contributor to the literature of surgery. Dr. Heyd has been president of the New York State Medical Society and as chairman in charge of arrangements for the last annual session of that association revealed an executive capacity extraordinary among practicing physicians. By his election the Association is assured a distinguished leader, a forceful speaker, and a genial physician to serve in the place of its President when the emergency arises.

PROCEEDINGS OF THE KANSAS CITY SESSION

MINUTES OF THE EIGHTY-SEVENTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT KANSAS CITY, MAY 11-15, 1936

HOUSE OF DELEGATES

First Meeting—Monday Morning, May 11

The House of Delegates convened in the Ballroom of the Hotel Muehlebach and was called to order at 10 a. m. by the Speaker, Dr. N. B. Van Etten.

Preliminary Report of the Reference Committee on Credentials

A preliminary report of the Reference Committee on Credentials was submitted by the chairman, Dr. J. D. Brook, Michigan, who reported that 153 delegates with proper credentials had registered. There being no regularly elected alternate from Illinois able to attend, Dr. Brook recommended the seating of Dr. Harold M. Camp, Illinois, in place of Dr. C. E. Wilkinson, who was not in attendance.

On motion of Dr. Brook, seconded by Dr. John Z. Brown Sr., Utah, and carried, the report of the Reference Committee on Credentials was adopted.

The Speaker declared that the roll call would be dispensed with and that the signed attendance slips would constitute the roll of the House for the morning.

Adoption of Minutes of Atlantic City Session

It was moved by Dr. McLain Rogers, Oklahoma, seconded by Dr. H. B. Everett, Tennessee, and carried, that minutes of the Atlantic City session be adopted as printed.

Address of the Speaker, Dr. N. B. Van Etten

The Vice Speaker, Dr. H. H. Shoulders, Tennessee, presided while the Speaker, Dr. N. B. Van Etten, read his address, which was referred to the Reference Committee on Reports of Officers:

Members of the House of Delegates:

You have been selected by your state societies to carry to this body the opinions of your constituents, the opinions of your county medical societies, the opinions of your individual members. As selected representatives you will fail in your duty if you sit silently because of diffidence or disinterest. Members who are here for the first time may fear to express themselves because they are unfamiliar with our procedure. May I assure them that they will not fail of recognition or of opportunity so long as they discuss the problems which are before the House and remain within reasonable parliamentary bounds. You are the policy makers of this democratic organization, and not only does the country look to you for constructive action which shall reflect the progressive sentiment of American medicine, but your constituents in turn look to you for an interpretation of the quality of that sentiment. It is not the function of your Speaker to recommend action of any kind, but it is within his privilege to urge you to exercise all of your constitutional privileges and to function as fully as your ability permits. Laissez faire is a worn out phrase but it is still stupidly employed by far too many physicians. This is not a specific criticism of this body only, but a legitimate criticism of a very large body of our citizenship. It is lamentable that the physicians of the United States, who constitute the most highly educated professional group of any country, fail so miserably in the exercise of citizenship. James Bryce listed as hindrances to citizenship "indolence, private self interest, and party spirit." Inflexible party spirit, which sees no virtue in those who have other affiliations, is essentially obstructive. Private self interest, which denies any generous inquiry into the reasonableness of other people's thinking, shuts the door in the face of progress. Indolence, disinterest, disinclination to help oneself, and avoidance of responsibility, failure to support those who are striving for the common good, are a hindrance to citizenship. Membership in the medical profession does not excuse any failure to function in the social or community life of the nation.

Every physician should employ all his abilities in the promotion of the public health. Every physician is politically potential. Every physician will find responsive hearing in every home which he visits if he will take the trouble to educate himself sufficiently to be able to discuss intelligently matters of local or national polity which concern the health of the community. He must acquire much more than a superficial knowledge of political machinery and must take his place therein. Dignified aloofness is stupidity dictated by laziness. The medical citizen of this type deserves nothing from our people and his profession will sink into economic slavery if he is allowed to direct it. Your Speaker would like to hope that this House of Delegates may be so stimulated by lively discussion that awakening messages may be carried home to all the physicians of this country. Your Speaker desires that every question shall be thoroughly debated in order that a reliable consensus may emerge. You will recall a recent special session of the House at which a unanimous action was taken. Although the Speaker, on that occasion, gave every possible freedom and latitude for personal expression, it seems evident that divergent sentiment which existed at that time, in that House, failed to be expressed. Ill advised or malicious critics frequently accuse the American Medical Association of failure to represent American medicine. These critics claim that a small group of officers is responsible for originating and propagandizing reactionary and obstructive policies. If the Association is not progressive, or sympathetically meeting social currents, the responsibility rests on the House of Delegates. You are responsible to American medicine and to the country for everything that is done by the administration. If your officers fail to carry out your mandates you may choose others, but your responsibility is fundamental. More than any other group, you are American medicine. The questions brought before you should be considered with the unequivocal thought that you are writing important social history. You have listened to much voting, the ayes are usually vibrant, but the noes attract more attention from those who are trying to think.

Unanimity is often colorless and uninspiring and is often viewed with suspicion of some undefined compulsion. For three thousand years since Icarus and his wings fell into the sea, man has persistently tried to fly and has finally conquered the air. For two thousand years physicians have faithfully kept the hippocratic oath and through its influence have continually polished their shining armor. They have climbed the hills and descended into the shadows and have climbed the hills again, always trying to press onward toward the prize of their high calling, which is the conquest of disease. There are elements in this country which are working for a totalitarian state. There are others who would preserve the essential values of individualism. There are those who would promote a social system in which government would dominate all professional and educational effort. It is not easy to see clearly through so many obscurant influences but we must make serious efforts in this House to think courageously and independently toward whatever is best for American medicine and for the American people.

After you have presented your resolutions you will not have discharged your duty until you have followed them to the reference committee and discussed them there so thoroughly

that you will be able to report to those whom you represent that the resultant action of this House represents the real opinion of this representative body. All reference committee rooms are open, and all delegates are welcome and free to discuss any question that may be assigned to a committee. Reference committees are requested to assemble as promptly as possible and to make every effort to be ready at the earliest possible moment to present their reports. Recesses, while the House waits, wastes time, involves hasty decisions, impairs efficiency and limits the opportunities of the delegates to visit concurrent scientific sessions. Expedition without sacrifice of free discussion should be our desired ideal.

Executive sessions may be of unusual significance. This year because of delicate questions which should be discussed within closed doors—in order perhaps to develop new policies—your Speaker requests that resolutions involving the relationships of physicians to hospitals, or other delicate questions, be either introduced by title and referred to the Reference Committee on Executive Session without reading or be introduced only in Executive Session on Tuesday afternoon.

The Reference Committee on Rules and Order of Business is requested to take this suggestion under early advisement and report as soon as possible.

Since our last session, at Atlantic City, in June 1935, we have lost many former officers of the Association and many former members of the House of Delegates. The dates following their names indicate the years of service:

Bundy Allen, Tampa, Fla., 1930-1932; 1935 Special Session; 1935.
James H. Bell, San Antonio, Texas (second vice president, 1904).
Thomas C. Chalmers, Forest Hills, N. Y., 1919-1930.
Henry B. Costill, Trenton, N. J, 1919; 1925; 1927
M. M. Davis, Mays Lick, Ky., 1929.
C. St. Clair Drake, Chicago, 1920.
Edward B. Heckel, Pittsburgh, 1906-1907; 1917-1920; 1922; 1924 (Trustee, 1924-1932).
H. M. Johnson, Dawson, Minn., 1926-1927; 1929-1934; 1935 Special Session.
E. Starr Judd, Rochester, Minn., (second vice president, 1918-1919; member of the Council on Scientific Assembly, 1915-1927; President-Elect 1930-1931; President, 1931-1932).
John W. Keefe, Providence, R. I., 1914.
Charles F. Kuhn, Detroit, 1917.
Frederick Epplen, Seattle, 1923-1924; 1928-1929.
James W. Gray, Clarksdale, Miss., 1916.
H. R. Lathrop, Casper, Wyo., 1911; 1919; 1920.
G. Milton Linthicum, Baltimore, 1935 Special Session.
J. G. R. Manwaring, Flint, Mich., 1930.
Charles L. Mix, Chicago, 1906-1907.
Emmett P. North, St. Louis, 1923-1934; 1935 Special Session; 1935 (member of Council on Medical Education and Hospitals, 1927-1934; member of Judicial Council, 1934-1936).
Levi H. Pelton, Waupaca, Wis., 1908.
T. E. Ross Sr., Hattiesburg, Miss., 1928.
Edwin P. Sloan, Bloomington, Ill., 1924-1932 (member of Judicial Council, 1932-1935).
Morgan Smith, Little Rock, Ark., 1912-1914.
H. R. Varney, Detroit, 1907.
Willis F. Westmoreland, Atlanta, Ga. (fourth vice president, 1896).
William H. Wilder, Chicago, 1926-1928; 1930-1931.

These, our friends, have passed beyond our vision, but they will continue to live in our memory.

Time, like an ever rolling stream,
Bears all its sons away;
They fly forgotten, as a dream
Dies at the opening day.
Our God our help in ages past,
Our hope for years to come
Be thou our guard while life shall last,
And our eternal home.

At the request of the Vice Speaker, the members of the House rose and stood for one minute in silent tribute to the memory of departed delegates.

Reference Committees

The Speaker presented the following names of members of Reference Committees:

SECTIONS AND SECTION WORK

Arthur J. Bedell, Chairman.....New York
J. F. Hassig.....Kansas
C. W. Roberts.....Georgia
Clyde L. Cummer.....Section on Dermatology and Syphilology
Tom B. Throckmorton.....Section on Nervous and Mental Diseases

RULES AND ORDER OF BUSINESS

W. H. Seemann, Chairman.....Louisiana
E. J. Best.....California
J. H. Fitzgibbon.....Oregon
J. C. Flippin.....Virginia
C. W. Waggoner.....Ohio

MEDICAL EDUCATION

George Blumer, Chairman.....Connecticut
C. A. Dukes.....California
Ben R. McClellan.....Ohio
Joseph F. Siler.....United States Army
J. Gurney Taylor.....Wisconsin

LEGISLATION AND PUBLIC RELATIONS

R. L. Sensenich, Chairman.....Indiana
A. C. Morgan.....Pennsylvania
E. N. Roberts.....Idaho
J. H. Irwin.....Montana
C. J. Whalen.....Illinois

HYGIENE AND PUBLIC HEALTH

Warren F. Draper, Chairman.....United States Public Health Service
J. Newton Hunsberger.....Pennsylvania
F. J. Underwood.....Mississippi
Guy W. Wells.....Rhode Island
Henry C. Macatee.....District of Columbia

AMENDMENTS TO CONSTITUTION AND BY-LAWS

John W. Amesse, Chairman.....Colorado
John F. Hagerty.....New Jersey
S. P. Mengel.....Pennsylvania
Wells Teachnor Sr.....Ohio
Charles S. Skaggs.....Illinois

REPORTS OF OFFICERS

Edward H. Cary, Chairman.....Texas
William R. Brooksher.....Arkansas
William A. Ellingwood.....Maine
Edgar A. Hines.....South Carolina
Edward R. Cunniffe.....New York

REPORTS OF BOARD OF TRUSTEES AND SECRETARY

Frederic E. Sondern, Chairman.....New York
W. F. Braasch.....Minnesota
E. F. Cody.....Massachusetts
J. H. O'Shea.....Washington
Walter E. Vest.....West Virginia

CREDENTIALS

J. D. Brook, Chairman.....Michigan
B. F. Bailey.....Nebraska
F. L. Beck.....Wyoming
J. R. McVay.....Missouri
Deering G. Smith.....New Hampshire

MISCELLANEOUS BUSINESS

H. A. Luce, Chairman.....Michigan
A. J. Scott.....California
H. B. Everett.....Tennessee
G. Henry Mundt.....Illinois
Harvey B. Stone.....Maryland

SPECIAL COMMITTEE ON EXECUTIVE SESSION

The Speaker asked for the consent of the House of Delegates to appoint a Reference Committee on Executive Session, which request was granted, on motion of Dr. Arthur J. Bedell, New York, seconded by Dr. W. H. Seemann, Louisiana, and carried. The Speaker then appointed the following committee:

C. E. Mongan, Chairman.....Massachusetts
W. Albert Cook.....Oklahoma
Wingate M. Johnson.....North Carolina
Brien T. King.....Washington
Floyd S. Winslow.....New York

SERGEANTS AT ARMS

Holman Taylor.....Texas
Howard C. Frontz.....Pennsylvania

Address of President James S. McLester

The Speaker resumed the Chair and presented the President, Dr. James S. McLester, Birmingham, Ala., who delivered the following address, which was referred to the Reference Committee on Reports of Officers:

Mr. Speaker and Members of the House of Delegates:

In addressing this representative body of medical men I feel that it is appropriate to tell you that after completing a year of service as your President I have come to entertain a very high opinion, vastly higher than ever before, of the American physician. I am thinking not only of his scientific attainments and professional usefulness but also of his splendid traits of character and his fine qualities of heart. It has been a great privilege to know him as I have been permitted to know him during the past year. I have been deeply impressed, too, by the solidarity of the medical profession and the loyalty of its members to the American Medical Association. No other

national body has the cohesiveness and the whole hearted support of its constituents such as is enjoyed by this great Association. This is a cause for congratulation and also a challenge. Leadership, such as is unquestionably yours, carries great responsibility.

This Association can look back on a year of successful accomplishment. The scientific assembly at the Atlantic City meeting in which our great neighbor, the Canadian Medical Association, participated, represented the most notable gathering of medical men that has ever taken place on this or any other continent. The scientific exhibit was splendid; the excellence of the contributions, the ease of their arrangement, and their educational value, surpass all previous exhibits. THE JOURNAL throughout the year has been developed still further in usefulness, and the several councils and bureaus, working in the interest of the American people, have extended their influence over constantly wider areas. It has been a notable year.

All of this the House of Delegates can contemplate with satisfaction, for on this House rests in the last analysis the responsibility for the success or failure of this Association and, therefore, a direct responsibility for the welfare of the American physician. Seldom, however, is it possible for a man, while regarding his past accomplishments with satisfaction, to feel that he can rest on these achievements and exert himself no further. So it is with the American Medical Association. Your very success opens up new vistas and points the way to new endeavors. It reveals the possibilities that lie ahead and stimulates you and your officers to still greater effort. It is this work that lies ahead of which I should like to speak.

The thing which above all others interests medical men in America today is the preservation, unimpaired, of established methods of practice, methods by which American medicine has reached its present preeminent position. I am conscious of the fact that every address delivered to you during the past three years has dealt with this subject, often exclusively, and realize that the time has perhaps come to discuss other things. There is, however, something yet to be said and with your indulgence I should like briefly to continue this discussion in order to say a word not only of congratulation but also of stimulation.

There have been times during the past two years when it appeared that disaster was just ahead, when government, in its effort to extend social reform, appeared ready to reach out for control of medical practice, and those who are familiar with the results of such governmental control in other countries contemplated this step with grave misgivings. But the leadership exercised by you over a united medical profession and its influence on public opinion were wise and effective and no such change was accomplished. I think it can be said that the American Medical Association has successfully and usefully challenged the attempts of social scientists, who, without recognition of the medical and scientific considerations involved, would revolutionize the organization of medical care on a social and economic basis. The professional independence of the American physician has been preserved.

Can we afford to rest here? Any one who reads history will say no. In Germany during the last half of the previous century there came first many social reforms, agrarian, industrial, maternal welfare, old age pensions and unemployment insurance, and then finally, in the effort to quiet the continued unrest of the people, and as a panacea for many social ills, Bismarck brought about drastic changes in medical practice. This led to the present deplorable krankenkassen system. A somewhat similar train of events, the result perhaps of different motives, followed in the Scandinavian countries and in France. Then, finally, in England, in the wake of other reforms, came Lloyd George's introduction of the panel system. Always, wherever government has reached out for control of the practice of medicine, it has been at the end of a long series of other so-called social reforms, and such control once established has never been relaxed.

Will history repeat itself in the United States of America? The train of events that I have attempted to describe as having taken place in European countries is already well started in this country, as can be seen in the maternal welfare, old age pension and other provisions of the social security act recently enacted by Congress. Will the politicians of the near future, anxious to carry governmental subsidies still further, extend their control, as politicians have already done elsewhere, to medical care? Certainly, if I read history aright, the attempt will be made, and repeatedly. Whether it will succeed depends in large measure on the attitude of the medical men of America. There is only one voice that speaks authoritatively for the physicians of America, and that is the American Medical Association. What should be its attitude?

The attitude of the American Medical Association, as in the past, should be one of close attention to the medical needs of the American people and of alert preparedness to meet these needs. We have been sound, eminently sound, in our position that any form of governmental control of the practice of medicine would be fatal to medical progress and that the real sufferers in the end would be the American people. But our soundness on this point should not lead us to deny that there are still many problems, and that the solution of these, so far as the provision of medical care is concerned, will certainly call for intelligent and constructive thought on the part of the men that provide the medical care in the various communities of the country. The fermenting of the public consciousness of evolutionary progress as it relates to medical care will continue. From time to time there will come proposals for action, many of them ill advised, a few of them meritorious. These proposals will come from one (or more) of three sources: (*a*) from the public, including social scientists, economists and self-appointed reformers; (*b*) from legislatures, susceptible only too often to demagogic initiative and influence, and (*c*) from the medical men of the country speaking through their authoritative organization, the American Medical Association. If proposals of merit are to be made, which of these shall be the first to make them? For you and me there can be but one answer. I know that you will agree with me, however, when I remind you that such proposals should never be hastily made. They should be the result of long and deliberate thought and should be adopted only after painstaking investigation.

May I take this occasion, then, respectfully to point out a few instances in which this alertness to the needs of evolutionary progress is either being satisfactorily exhibited or is in need of further stimulation?

1. The appointment two years ago by the Council on Medical Education and Hospitals of a "blue-print committee," whose duty it is to study the medical needs of the future and to suggest for your consideration such revisions of medical education as seem advisable, was a wise, far seeing step. One of the most important among its many problems, I am tempted to say the most important, relates to the admission of medical students. The future of American medicine and the place which the medical profession will occupy in the social structure, whether one of dignified independence or of subordinate subservience, will depend in no small measure, I am convinced, on the type of man who is admitted to the study of medicine. Greater care than ever before is being exercised to devise standards and to select from the enormous number of applicants those men who, broadly considered, are best calculated to measure up to their opportunities. This committee has other difficult problems but it is proceeding with care and deliberation toward their solution. The group includes educators and other physicians of a wide range of professional interest; they are men of judgment and vision and from them can be expected advice that will go a long way toward settling some of the problems with which we are now confronted.

2. The work of the Council on Medical Education and Hospitals and of the Associated Certifying Boards in organizing, under the direction of this House, the several examining boards and in perfecting the machinery for the certification of specialists is a highly meritorious step and one that meets a rather insistent demand on the part of the public. Such certification involves many difficulties and must proceed with deliberation, but it should go forward as rapidly as possible and every effort should be made in the future to insure the effectiveness of this work.

3. To what extent do the hospital insurance schemes now being experimented with in different communities involve imposi-

tion on the attending physician and in other ways do violence to accepted professional standards? Are they adequate for the needs they are supposed to meet? These and similar questions are receiving the attention of the Bureau of Medical Economics. Soon they must be answered authoritatively.

4. Has the time come for a certain amount of standardization throughout the country in the relationship which the medical profession bears to certain governmental agencies, relationships which vary markedly in different communities? And is such standardization advisable? What is the proper relation, for instance, in a given county or community between the established associations of medical men and the public health authorities? In what form can still more effective cooperation between these two groups be worked out? I hope I shall be pardoned for pointing with pride to my own state, where the state medical association is by organic law the state board of health and appoints its own committees and officers. It seems to me that, as soon as we are prepared, steps toward such standardization as is possible could well be taken.

5. Many medical men feel that the care of the indigent must necessarily become in greater degree a charge on local tax funds. Physicians certainly are not weary of helping the unfortunate and of giving their services gratis, but there is a growing feeling that the problem has become too large for that kind of solution. If, then, the care of the indigent is to be recognized as in greater degree a governmental responsibility, what relation is to be worked out between medical men and governmental authorities, in order that purely medical considerations shall remain in the hands of the medical men and not of lay authorities? And who is to certify indigence? The problem has been worked out satisfactorily, I am told, in some communities. How can the principles used there be applied and worked out elsewhere? In this question alone there are a dozen sharp problems.

6. The Bureau of Health and Public Instruction of the Association is doing a meritorious piece of work and is going about it in the right way. Can this work be extended yet further and the public educated to a still better conception of health and the ways of guarding it? What further can be done to correct the public's tendency to depend on drug store prescriptions and "patent medicines" and to call in the doctor only when other sources have failed? What further, if anything, can be done about radio advertising of nostrums and proprietary medicines, which so clearly develop a tendency on the part of the public to deal with grave conditions without benefit of science and without either competent diagnosis or counsel? What can be done in further restriction of quacks and incompetents?

These problems are not comprehensive. Some of them may not be problems at all. But I present them to you as examples of the type of problem with which, in the evolutionary progress of our profession, we must continue to grapple. If they demand solution, we, not demagogues or social reformers, must solve them. Nor are these questions presented for immediate solution. A careful analysis of all factors concerned and profound thinking will be required for the ultimate answer.

And now may I speak of what is uppermost in the minds of all of us, of the great distress that we feel, you and I, over the illness of our friend and President-Elect, Tate Mason. During our brief period of service together as officers in the Association I have come to feel a deep affection for him and to entertain a high regard for his professional ability. Together he and I made a visit last winter to certain Eastern cities, where we discussed the work of the Association and endeavored to interpret your policies. Our object was to tell the members of the profession of the far reaching influence for good of this great Association and to convince them of the wisdom of the policies adopted by you. If there had been the least doubt in my own mind, Tate Mason would have convinced me. Those of you who heard him were, I am sure, proud that he represented you. Tate Mason is built of fine stuff. His qualities of heart and mind endear him to all men who know him. His illness is a great sorrow to all of us and I know that you join me in wishing him an early recovery.

Message from President-Elect

Dr. Brien T. King, Washington, read the following message from Dr. J. Tate Mason, President-Elect of the American Medical Association, who was prevented from being in attendance because of illness, which was referred to the Reference Committee on Reports of Officers:

Mr. Chairman and Delegates of the American Medical Association:

Within the past year I have had the pleasure of speaking before approximately 8,000 physicians, not including the American Pharmaceutical Association and the physicians of British Columbia. These addresses were given in eighteen different states, and, while some of them were on scientific subjects, I found that the vast majority of the men of the profession were interested in the economic situation and that this subject was always brought in and discussed before the meetings adjourned.

I was surprised to find how little the average American physician knows about the work that is being carried on at the headquarters of the American Medical Association. To enable these physicians to understand and appreciate the many activities of the national association, with which you of the House of Delegates are so well acquainted, I suggested to the secretaries of the state societies and the editors of the state journals, at their meeting in Chicago last November, that each state should send at its own expense a representative to Chicago for a week each year, to study and acquaint himself with the activities of the Association so that he might bring an idea of these home to the men of his state. I suggested that this physician should not be a secretary or other officer of the state association or the editor of the journal, but some man who could impart this knowledge to the men of his state, and that this should be his sole duty.

In this rather brief address to the House of Delegates, I should like to impart to you the impression that I received from hundreds of these physicians to whom I was able to talk in practically all parts of America. It goes without saying that they did not all think alike. There were many fantastic and weird suggestions, but on the whole the physicians can be divided into three groups with respect to their ideas on medical economics. The first two groups together form a distinct minority, and the last and largest group stands out far in the majority throughout the country except in a few places on the Pacific and the Atlantic coasts.

Group A included a number of men who felt that the American Medical Association needed more leadership, that the House of Delegates should have met again last February, and that very definite proposals should be made for the future of organized medicine. They felt that a great deal of money should be spent for publicity, radio, newspapers, and so on. Some of these men felt that the House of Delegates should never meet at the Scientific Session because so many weighty problems had to be dealt with in such a short space of time that very rarely were they able to carry through to completion many things that were of utmost importance to medical practice today. This, however, represented a small group of men. This rather small group of individuals in many instances felt that the American Medical Association should prepare some skeleton plan of medical service with which all the county societies could immediately join in. A working basis could be developed from this plan which would eventually become universal for all the component societies of the American Medical Association.

In group B there were men who believed that a change in the delivery of medical care is impending and probably necessary. They would advise in this evolutionary development that all that is good and worth while in the present schemes in practice be preserved intact. They felt that it was necessary in this changed condition of practice to preserve all the fine traditions and high quality of medical care and the fine features of individualistic medical practice. These men approved of the small units of service over limited geographic areas that are being organized at the present time rather than of a large aggregation of units. They felt it would take at least five to ten years to study these schemes, and by that time many could

be correlated and regulated to prevent competition between them and also to avoid overlapping in their spheres of activity. They doubted whether any scheme for medical service would be applicable to all sections of the country. The difference in the character of the localities and of the people residing in them would necessitate differences of course in the schematic outline.

Group C, which carried definitely the largest number of physicians in America that I was able to see and whose views I was able to hear, felt that the Board of Trustees and the House of Delegates do recognize the medical situation which exists today. This situation is found not only in one part of America but practically throughout the United States. The men of this group felt that it was inevitable that the medical profession should suffer severely from the economic crisis of the past few years. Like other professional as well as business groups, we depend on the purchasing power and the prosperity of the general masses of our population. They felt it was equally inevitable in such a time of stress that considerable attention should be focused on the financial aspects of the practice of medicine. The stringency, in its acutest phase, made medical economics a matter of primary concern. Such a state of affairs, they felt, was not conducive to that balanced thinking which accompanies a sense of security and well being. Judgment is likely to become hasty and action is not always for the best. It is not surprising that in such a time of trial numerous schemes should be devised to change the existing order. Some of these plans have originated within and some outside of the medical profession. Some have received great support, with the hope that their application might result in an improved economic condition. With regard to the physician, many of these plans involve changes which social welfare workers, foundations and many industrialists have been working assiduously for many years to impose on us.

This movement inside the medical profession is paralleled by the appearance of unsound schemes offered as cures for the economic ills of our general population. The valley of every business cycle, when our fortunes are at low ebb, has ever been a fertile breeding ground for panaceas of all kinds. As the cycle begins the upward swing toward prosperity, the panaceas are abandoned and forgotten.

In such times the American Medical Association through its democratic system of representative bodies, the House of Delegates and the Board of Trustees, seeks to formulate policies and principles to guide its component societies and membership through the stormy waters of economic experimentation. The men of this group C of whom I am speaking were glad to know that many of the policies set forth by the Association are simply the restatement of fundamentals which our leaders for nearly a century have found to be essential to the preservation of the most advanced medical practice, as well as the best professional care to the public. They were pleased and gratified to hear that the aim of the American Medical Association is to preserve the individual private practice of medicine, with free and open competition among physicians and the maintenance of personal relationship of doctor and patient. The well considered opinion of leaders in medicine throughout the country is that once this principle is compromised the medical profession of this country is headed toward the status of serfdom.

They realized that there are some who hold that, unless the medical profession develops a new plan for the care of the masses, state medicine is inevitable and that the way to forestall this traditional bugbear is to set up organizations under medical control to perform the functions of a state system of medicine. However, these men felt that no more proved fallacy exists than this. The history of other countries clearly shows that voluntary prepayment and insurance schemes, in the hands of the profession at the outset, drift inevitably, as do all plans initiated by private groups, into bureaucratically administered compulsory insurance under governmental control. They felt that the most certain method of hastening state medicine is for the medical profession to institute radical changes in medical practice in the form of some experiment of this kind.

The medical profession may rest assured that its future depends on the defeat of the present trend toward general socialization and the maintenance in America of at least a moderate individualism. The socialization of medicine is only one phase of the movement toward general socialization and the ultimate abandonment of the American individualistic system. We must accept the adversity as well as the prosperity which accompanies our continually changing times, knowing full well that the lean years of the economic cycle are compensated for by long periods of prosperity. The alternative is the bartering of our status as independent professional men for the dependent and fixed condition of government servitude.

In conclusion, a majority of the men whom I have met in this country felt that they had no great disapproval of the adoption of sickness insurance carried out by the local medical societies if it had the approval of the majority of the members. However, on the other hand, they were almost unanimous in their disapproval of the adoption of sickness insurance, either of the voluntary or of the compulsory variety, as a whole. They likewise disapproved of the extension of federal control of medicine.

Interpretation of Constitution and By-Laws

Dr. Frederic E. Sondern, New York, moved that, under the extraordinary circumstances involving the incapacity of the President-Elect, it would seem desirable to have an interpretation of the Constitution and By-Laws by the Judicial Council and to have that Council report to the House on the matter as soon as possible. The motion was seconded by Dr. Samuel J. Kopetzky, New York.

Dr. Holman Taylor, Texas, suggested that the motion be amended to request the Judicial Council also to analyze this situation and to recommend a procedure. The amendment was accepted and the motion as amended carried.

Address of Vice President Kenneth M. Lynch

The Speaker presented the Vice President, Dr. Kenneth M. Lynch, Charleston, S. C., who delivered the following address, which was referred to the Reference Committee on Reports of Officers:

Mr. Speaker, Mr. President and Representatives of the Greatest Medical Organization in Existence:

I am not given to the use of superlative terms. I address you in this fashion deliberately not as a matter of compliment to you in return for your compliment to me, but in recognition of your accomplishment.

The present occasion has led me in recent days to look into some of the old proceedings of this body in its early days, and particularly into the minutes of the fourth annual convention, which was held in my own city in 1851.

There are many interesting, enlightening and helpful expressions and actions in the study of these old recordings, and I would recommend that it would be good for all of us in our present-day problems to give some study to them. I shall not presume on your time at the present to make tempting and perhaps profitable comparisons of the problems of this former day, now four score and five years ago. Those of the present are not so different. The difference is largely in degree and not particularly in kind. But I would in justification of my greeting to you recall what was interesting to observe in the minutes of the fourth annual session of the American Medical Association, that there was scepticism among the members of the Association and doubt from the European profession that the American Medical Association would prove worthy of its objectives.

In the intervening years this body has demonstrated its ability to carry forward those objectives toward accomplishment, and so my greeting to you. The American Medical Association, through its work particularly, has reached the peaks of success.

Permit me to remind you, however, that in journeying from the lowlands to the highlands the going is most arduous at the extremes. In the beginning the bogs and sloughs and roughness may defeat weak purpose and inefficient organization; after a full swing has got under way, progress may be com-

paratively easy, but when the heights are reached courage, stamina and unfaltering resolution are essential if the route is to be completed.

There are obstacles of obstruction to overcome and pitfalls to avoid, but we have every confidence that our progress will not be altered in attempting to reach the ever present goal of improving service to life. As a process in your work let me commend the following principle quoted from the minutes of the American Medical Association in 1851:

"The only way to remove the errors is that old and homely way so effective in removing error on other subjects—the presentation of the truth. But the effort must be made in the right spirit. Ill natured attacks do no good. Railing never convinced any man of his error. Confidence in the power of truth, and charity toward the common propensity of the human mind to err should teach physicians patience in their attempts to convince their fellow men of their errors on so abstruse a subject as medicine. The lesson of patience will be better learned if we remember that most of the popular medical errors had a common origin with some that have prevailed among medical men, and that not a few took their rise first in the profession and afterward spread among the people. Too much importance, we think, has been generally attached to those means which are direct and too little to those which are indirect in their application."

REPORTS OF OFFICERS

Report of the Secretary

Dr. Olin West presented his report as Secretary, which was referred to the Reference Committee on Reports of Board of Trustees and Secretary.

Affiliate and Associate Fellowship Applications

On motion of Dr. H. B. Everett, Tennessee, seconded by Dr. John Z. Brown, Utah, and carried, the Affiliate and Associate Fellowship Applications in the hands of the Secretary were referred without discussion to the councils and sections indicated.

Greetings from National Congress of Parents and Teachers

The Secretary presented the following telegram:

National Congress of Parents and Teachers extends cordial greetings to the American Medical Association in convention assembled with deep appreciation for its long continued cooperation.

MRS. B. F. LANGWORTHY.

Report of the Board of Trustees

Dr. Rock Sleyster, Chairman, presented the report of the Board of Trustees, which was referred to the Reference Committee on Reports of Board of Trustees and Secretary, except those portions of the report referring to the Bureau of Legal Medicine and Legislation and to the Bureau of Medical Economics, which were referred to the Reference Committee on Legislation and Public Relations.

Supplementary Report of Board of Trustees

Dr. Rock Sleyster, Chairman, also presented the following supplementary report of the Board of Trustees, which was referred to the Reference Committee on Reports of Board of Trustees and Secretary, except the portion referring to the memorandums, which was referred to the Reference Committee on Executive Session:

RADIO ADVERTISING

In reference to the resolution relative to obviating the evil of radio broadcasting of medical misinformation, introduced to the House of Delegates last year by Dr. James F. Rooney, New York, and that condemning the broadcasting of misinformation pertaining to medicaments, food and cancer introduced by Dr. Holman Taylor, Texas, both of which were referred to the Board of Trustees, the Board would report that representations have been made by the Association to the broadcasting chains and to the Federal Communications Commission, which is concerned with radio broadcasting. There is a general recognition of the danger of such advertising, and the leading broadcasting chains have announced censorship of medical advertising to go into effect at once with the elimination of advertising of cathartics, laxatives and other medicinal preparations, just as soon as current contracts expire.

The subject of radio advertising is, of course, also involved in the proposed new foods and drugs legislation. In many local communities, steps are being taken to bring pressure to bear on the management and ownership of these stations, with a view to eliminating false medical advertising. This is a reform in which progress must of necessity be slow. We are, however, continuing our efforts through popular education, using HYGEIA and the Bureau of Health and Public Instruction, as well as the informational service supplied by the Bureau of Investigation in the headquarters.

HYGEIA IN CCC CAMPS

The Board is glad to report that, pursuant to the resolution introduced in the House of Delegates last year by Dr. Ralph Fenton, Oregon, correspondence has been conducted with the Army Medical Department and that as a result some 3,000 subscriptions for HYGEIA have been promised. It is expected that these subscriptions for the CCC camps will begin with the July issue.

MEMORANDUMS FROM BUREAU OF LEGAL MEDICINE AND LEGISLATION

The Board presents two memorandums from the Bureau of Legal Medicine and Legislation, one dealing with the proposed omission of items referring to legitimacy and illegitimacy from standard forms for reports of births and stillbirths, and the other dealing with suggested limitation of right of certain physician-offenders against the Harrison Narcotic Act to obtain narcotic drugs for professional use and to prescribe such drugs professionally.

INVITATION TO ASSOCIATION TO MEET WITH CANADIAN MEDICAL ASSOCIATION IN 1939

An invitation from the Canadian Medical Association for a joint meeting in Toronto in 1939 received consideration of the Board and was referred to the House of Delegates with a statement to the effect that it does not seem expedient to make plans for a joint meeting with the Canadian Medical Association in the near future.

Report of the Judicial Council

Dr. George Edward Follansbee, Chairman, presented the report of the Judicial Council, which was referred to the Reference Committee on Reports of Officers.

Report of the Council on Medical Education and Hospitals

General Merritte W. Ireland, Washington, D. C., presented the report of the Council on Medical Education and Hospitals, together with the two following supplementary reports, which was referred to the Reference Committee on Medical Education:

Supplement A. Schools for Physical Therapy Technicians

The preliminary study of schools for physical therapy technicians by the Council on Medical Education and Hospitals, authorized by the House of Delegates during the annual convention of the American Medical Association at Cleveland, June 11-15, 1934, has been completed.

Thirty-seven schools were included in the survey. After carefully studying the inspection reports and securing the opinions of the Council on Physical Therapy, the American Congress on Physical Therapy and the American Physiotherapy Association, the following essentials are proposed:

ESSENTIALS OF AN ACCEPTABLE SCHOOL FOR PHYSICAL THERAPY TECHNICIANS

I. ORGANIZATION

1. A school for physical therapy technicians should be incorporated as or under a nonprofit institution. Its board of trustees should be composed of public spirited men or women having no

financial interest in the operations of the school. The trustees should serve for fairly long and overlapping terms. If the choice of trustees is vested in any other body than the board itself, that fact should be clearly stated. Officers and faculty of the school should be appointed by the board.

2. Affiliation with a college, university or medical school is highly desirable but is not an absolute requirement.

II. Faculty

3. The school should have a competent teaching staff, graded and organized by departments. Appointments should be based on thorough education and training and successful teaching experience. Nominations for faculty positions should be made in accordance with academic custom. The staff should include not less than one qualified salaried instructor and in each institution where practical training is carried on not less than one qualified physical therapist. The question of full time and part time appointments is not as important as the qualifications of the instructors, who should be specialists or exceptionally well trained and well qualified in the lines they are teaching.

III. Plant

4. The school should own, or enjoy the use of, buildings sufficient in size to provide adequate lecture rooms, class laboratories and administration offices. Adequate equipment should include anatomic charts, manikins, models, stereopticons and other aids to effective teaching. It is suggested that dissecting materials should be provided to enable each student to dissect or have the benefit of demonstration of dissection of at least the lateral half of the human cadaver. Skeletons and disarticulated bones should be supplied. There should be a library receiving regularly all the scientific periodicals pertaining to physical therapy, current numbers of which should be easily accessible to the students.

IV. Clinical Facilities

5. Provision should be made for each student to receive practice training adequate in kind and amount under competent supervision in physical therapy in a hospital or other institution acceptable to the Council on Medical Education and Hospitals of the American Medical Association.

V. Resources

6. Experience has shown that a modern school of physical therapy cannot as a rule be maintained by the income from students' fees. No physical therapy school, therefore, should expect to secure approval which does not have a substantial income in addition to students' fees.

VI. Administration

7. There should be careful and intelligent supervision of the entire school by an executive officer who, by training and experience, is fitted to interpret the prevailing standards in physical therapy education, and who is clothed with sufficient authority to carry them into effect.

8. There should be satisfactory records, showing conveniently and in detail the credentials, attendance, grades and accounts of the students, by means of which an exact knowledge can be obtained regarding each student's work. Except for good cause, such as for illness, no credit should be given for any course when the attendance has been less than 90 per cent of the full time.

VII. Requirements for Admission

9. Candidates for admission should be able to satisfy one of the following requirements:

(*a*) Two years or sixty semester hours of college, including courses in physics and biology.

(*b*) Graduation from an accredited school of nursing.

(*c*) Graduation from an accredited school of physical education.

Courses in general physics, chemistry and biology are highly recommended for all who seek to enter training in physical therapy.

10. The admission of students to the physical therapy school must be in the hands of a responsible committee or examiner, whose records shall always be open for inspection. Documentary evidence of the student's preliminary education should be obtained and kept on file. When the physical therapy school is an integral part of the university, this work usually devolves on the university examiner.

11. Advanced standing may be granted to students for work done in other acceptable physical therapy schools or hospital departments, provided the entrance requirements and other essentials herein set forth have been complied with. Official verification of the student's previous physical therapy work should be obtained by direct correspondence with the schools previously attended, and his preliminary qualifications should also be verified and recorded the same as for first-year students.

12. Complete physical examination of each student admitted should be conducted under the auspices of the school.

VIII. Publications

13. The school should issue, at least annually, a bulletin setting forth the character of the work which it offers. Such announcement should contain a list of the members of the faculty with their respective qualifications.

IX. Minimum Curriculum

Subjects	*Hours* Theory	*Hours* Laboratory and Practice Training
Anatomy (including applied anatomy, demonstration on cadaver and lecture)	210	...
Clinical practice	...	400
Electrotherapy	30	45
Ethics and administration	5	..
Hydrotherapy	5	15
Massage	15	45
Pathology	30	..
Physiology	30	45
Principles of physical therapy as applied to:		
Medicine	15	30
Neurology	10	15
Orthopedics	15	30
Surgery (including surgical observation)	15	30
Psychology	15	..
Therapeutic exercise	30	75
Electives	45	..
	470	730
Total	1,200 hours	

Suggested electives: asepsis, bandaging, first aid, history of physical therapy, hygiene, joint measurements, office routine, occupational therapy, records, social service.

All subjects should be taught by qualified teachers.

Length of course: Not less than nine months.

Supplement B. Schools for Clinical Laboratory Technicians

During the past two years the Council on Medical Education and Hospitals has made a study of schools for the training of clinical laboratory technicians. One hundred and ninety-six schools have been examined and their procedures analyzed. After consultation with the American Society of Clinical Pathologists, the following standards are proposed as a basis for the recognition of schools for laboratory technicians:

ESSENTIALS OF AN ACCEPTABLE SCHOOL FOR CLINICAL LABORATORY TECHNICIANS

I. Organization

1. Acceptable schools for training laboratory technicians may be conducted by general hospitals, colleges or universities. Consideration may be given courses operated by public health laboratories or by pathologists.

2. Responsibility for courses in hospitals should be placed on the hospital administration rather than the laboratory director. In colleges and universities this responsibility is on the controlling board, as for other courses.

3. Resources for continued operation of the school should be insured through regular budgets, gifts or endowments; but not entirely through students' tuition fees. Experience has shown that commercial schools operated for profit frequently do not

adhere to proper ethical and educational standards and are, as a rule, not considered acceptable.

4. There must be available transcripts of high school, college work and other credentials. Attendance and grades of students shall be carefully recorded, by means of which an exact knowledge may be obtained regarding each student's work.

II. FACULTY

5. The school should have a competent teaching staff. The director must be a graduate in medicine and a pathologist or clinical pathologist of recognized ability. He shall take part in and be responsible for the actual conduct of the training course. He shall be in daily attendance for sufficient time to supervise properly the laboratory work and teaching.

6. In laboratory practice the enrolment shall not exceed one student to each member of the teaching staff. The staff should include not less than one salaried instructor who is a registered technician or eligible for registration, in addition to the laboratory director.

III. CLINICAL FACILITIES

7. Each student should receive practice training, adequate in kind and amount, under competent supervision, in a hospital laboratory. The hospital should be registered by and be otherwise acceptable to the Council on Medical Education and Hospitals of the American Medical Association and have a minimum of 2,000 yearly admissions.

8. Adequate space, light and modern equipment shall be provided in the laboratory department. A library containing up-to-date references, texts and scientific periodicals pertaining to clinical laboratory work and pathology should be maintained.

9. Satisfactory record systems shall be provided for all work carried on in the department. Monthly and annual classifications of the work of the department should be prepared.

IV. CURRICULUM

10. A. Candidates for admission should be able to satisfy one of the following requirements:

1. One year of college work, including chemistry and biology from a recognized college or university. Jan. 1, 1938, this requirement is to be raised to two years of college work.
2. Graduation from a school of nursing recognized by the state board of nurse examiners, and in addition college chemistry.

B. The course of training shall be not less than twelve months in duration and shall include the following divisions:

1. Biochemistry.
2. Hematology.
3. Bacteriology.
4. Parasitology.
5. Histologic technic.
6. Serology.

The instruction shall include:

1. Text assignments.
2. Lectures.
3. Demonstrations.
4. Quizzes.
5. Examinations—written, oral and practical.

V. ETHICS

11. Exorbitant fees and commercial advertising shall be considered unethical.

12. Schools conducted for the purpose of substituting students for paid technicians will not be considered for approval.

Report of the Council on Scientific Assembly

Dr. James E. Paullin, Atlanta, Ga., in the absence of the Chairman of the Council, Dr. Irvin Abell, Kentucky, presented the report of the Council on Scientific Assembly, which was referred to the Reference Committee on Sections and Section Work.

Supplementary Report of Council on Scientific Assembly

Dr. Olin West, Secretary, presented the following report dealing with blood grouping in establishing the paternity of a child, which was referred to the Reference Committee on Sections and Section Work:

The Committee of the Council on Scientific Assembly has looked into the question of blood grouping in establishing the paternity of a child, and it wishes to report at the present time that, from its knowledge of this subject and a careful study of the literature, it is not possible to state with any degree of certainty that the child is an offspring of a certain adult or that the latter is the father or mother of the child.

The committee recommends that the subject should have more thorough study and would suggest that this study be made by a group of investigators having a first-hand knowledge of this matter. It is suggested that Drs. Landsteiner, Wiener and Levine be asked by the Board of Trustees to look into this matter further.

Report of Committee to Study Contraceptive Practices and Related Problems

Dr. James R. Bloss, Board of Trustees, announced that there would be ready for presentation at the Executive Session a report of the Committee to Study Contraceptive Practices and Related Problems, and the Speaker announced that this was referred to the Reference Committee on Executive Session.

Report of Reference Committee on Rules and Order of Business

Dr. W. H. Seemann, Chairman, presented the following report:

Your Reference Committee on Rules and Order of Business has carefully considered that portion of the Speaker's Address which refers to executive sessions, and offers the following resolutions:

Resolved, That the Speaker of the House of Delegates, now in session, be empowered, at his discretion, to refer any resolution to the Special Reference Committee on Executive Session; and be it further

Resolved, That the Speaker be empowered to declare an executive session whenever he deems one necessary.

Your Committee suggests that members having resolutions to present at this session kindly confer with the Speaker beforehand in order that proper disposition of the resolutions may be made.

Respectfully submitted.

W. H. SEEMANN, Chairman.
E. J. BEST.
J. H. FITZGIBBON.
J. C. FLIPPIN.
C. W. WAGGONER.

On motion of Dr. Seemann, seconded by Dr. H. B. Everett, Tennessee, and carried, the report was adopted.

NEW BUSINESS

Consideration of a Bill (S. 4516) to Provide for Tuberculosis Hospitals and for Their Operation

Dr. Horace Reed, Oklahoma, requested that the proper reference committee of the House consider the desirability of a bill (S. 4516) to provide for tuberculosis hospitals and for their operation. The Speaker referred this to the Reference Committee on Legislation and Public Relations.

Resolution on Status and Responsibility for Answers Published in Queries and Minor Notes in The Journal

Dr. Albert Soiland, Section on Radiology, introduced the following resolution, which was referred to the Reference Committee on Sections and Section Work:

The following resolution was introduced by Dr. Thomas A. Groover, Washington, D. C., before the Executive Session of the Section on Radiology of the American Medical Association

at the Atlantic City session in 1935, and was adopted by unanimous vote:

WHEREAS, The answers published in the Department of Queries and Minor Notes of THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, being unsigned, are readily construed as representing the official opinion of the American Medical Association, thus giving them a standing and authority which would otherwise not obtain; and

WHEREAS, The answers are obviously on occasion merely the expression of individual opinion and should be interpreted in the light of that fact; and

WHEREAS, Without such interpretation the answers are misleading and deceptive and capable of working a serious injustice to many who may hold opinions at variance with those expressed; therefore be it

Resolved, That the Section on Radiology of the American Medical Association recommends to the House of Delegates that appropriate steps be taken to make plain to the casual readers of THE JOURNAL the status of and responsibility for the answers published in the Department of Queries and Minor Notes.

Resolutions on Taking Steps That Will Result in Practice of Medicine Being Conducted by Physicians and Not by Hospitals

Dr. Albert Soiland, Section on Radiology, presented the following resolutions, which were referred to the Reference Committee on Medical Education:

WHEREAS, Certain lay groups in this country are arranging for or attempting to arrange for the provision of diagnostic medical services along with and as a part of hospital services; and

WHEREAS, The provision of such diagnostic medical services must inevitably foster fundamental changes in the practice of medicine; and

WHEREAS, The American Medical Association is of the opinion that the practice of medicine should at all times be confined to fully licensed physicians; and

WHEREAS, Article 6, Section 4, of the Principles of Medical Ethics sets forth the following:

"It is unprofessional for a physician to dispose of his professional attainments or services to any lay body, organization, group or individual, by whatever name called, or however organized, under terms or conditions which permit a direct profit from the fees, salary or compensation received to accrue to the lay body or individual employing him. Such a procedure is beneath the dignity of professional practice, is unfair competition with the profession at large, is harmful alike to the profession of medicine and the welfare of the people, and is against sound public policy."

Now therefore be it

Resolved, That the House of Delegates of the American Medical Association is unalterably opposed to such practices; and be it further

Resolved, That the House of Delegates of the American Medical Association is opposed to the division of any branch of medical practice into so-called technical and professional portions; and be it further

Resolved, That the Council on Medical Education and Hospitals of this Association be and is hereby authorized and directed to take such steps as will result in the practice of medicine being conducted by physicians and not by hospitals; and be it further

Resolved, That the said Council be and hereby is directed annually to report to this House of Delegates such progress as it is able to achieve from time to time.

Resolutions Disapproving Division of Any Branch of Medicine Into Technical and Professional Portions

Dr. Edward M. Pallette, California, presented the following resolutions, printed in the Handbook, which were referred to the Reference Committee on Executive Session:

Under instructions of the Council of the California Medical Association, the California Medical Association delegates to the 1936 Kansas City session are directed to introduce the following resolutions in the American Medical Association House of Delegates:

WHEREAS, Certain organized lay groups in this country are endeavoring to arrange for the provision of diagnostic medical service along with and as part of hospital services; and

WHEREAS, The provision of such diagnostic medical service will inevitably foster fundamental changes in the practice of medicine; and

WHEREAS, Such changes in the practice of medicine may well result in deterioration of our present medical standards and especially in deterioration in the quality of medical care furnished to hospital patients; now therefore be it

Resolved, That it is the official policy of the House of Delegates of the American Medical Association that it disapproves of the division of any branch of medicine into technical and professional portions; and be it further

Resolved, That copies of this resolution shall be brought to the attention of the American Hospital Association and its affiliated groups, to the end that existing arrangements permitting division in medical practice be terminated as speedily as possible.

Resolution on Favoring One Basic Law Governing Industrial Health Propositions

Dr. A. R. McComas, Missouri, presented the following resolution, which was referred to the Reference Committee on Hygiene and Public Health:

Under instruction of the house of delegates of the Missouri State Medical Association at the seventy-ninth annual meeting held in Columbia, April 13-15, 1936, Missouri delegates to the 1936 Kansas City session desire to introduce the following resolution:

WHEREAS, The incidence of industrial diseases is growing more and more serious each day with special reference to chest condition produced by the inhalation of dust; and

WHEREAS, There is no uniform law governing the operations of various industries in our many states; and

WHEREAS, Neither labor nor industry knows where it stands, therefore, both are at a disadvantage; and

WHEREAS, There is no adequate uniform regulation to protect either the laborer or the industry; and

WHEREAS, Under the existing circumstances it is impossible for the small industry to carry insurance to protect its existence on account of high premiums; and

WHEREAS, Due to the lack of uniformity of laws large insurance companies are reluctant to take the risk of carrying any company who may have the least semblance of dust during its operation because there is no adequate law to force the employee to obey the rules of the company; and

WHEREAS, Most of the larger companies are engaged in interstate transactions and, therefore, difficult for each state to enforce the laws that already exist; and

WHEREAS, Certain companies are daily moving from one state to another in order that they may have protection, or that they may dodge some adverse legislation that may be passed while they are operating in said state; and

WHEREAS, Due to the lack of uniformity of law concerning these health problems, many cities and states are losing incomes that they are justly entitled to by virtue of the fact that the company under consideration is located in said state or city where prohibitive legislation is bad; therefore be it

Resolved, That it is the official policy of the House of Delegates of the American Medical Association to favor either federal legislation on these points or some uniform compact between states so that there will be one basic law governing all these health propositions.

Resolutions on Disapproval of Division of Radiology Detrimental to Best Interests of the Public, the Medical Profession and the Hospitals

Dr. Francis F. Borzell, Pennsylvania, introduced by title resolutions dealing with disapproval of division of radiology, which were referred to the Reference Committee on Executive Session.

Resolution Requesting Establishment of Committee to Study Scientific Status and Development of Progress in Air Conditioning

Dr. Arthur J. Bedell, New York, introduced the following resolution, which was referred to the Board of Trustees:

WHEREAS, The relationship existing between temperature, humidity and other factors in the atmosphere are matters of great concern to general health; and

WHEREAS, Mechanical and other services are being developed for modifying and controlling the air we breathe and the conditions of respiration; therefore be it

Resolved, That the Board of Trustees establish a committee and provide sufficient funds for ascertaining the scientific status of methods and the development of progress in air conditioning.

Resolution Requesting the Appointment of Committee on Asphyxia

Dr. Frederic E. Sondern, New York, presented the following resolution, which was referred to the Reference Committee on Miscellaneous Business:

WHEREAS, The aims and purposes of the Society for the Prevention of Asphyxial Death were approved by the Medical Society of the State of New York, May 14, 1934; and

WHEREAS, These aims and purposes were later approved by the House of Delegates of the American Medical Association, June 12, 1934; and

WHEREAS, The Society for the Prevention of Asphyxial Death was invited by the Bureau of Exhibits of the American Medical Association to prepare an exhibit for the Scientific Exhibit at the regular session of the American Medical Association, which was held at Atlantic City in June 1935; and

WHEREAS, The Scientific Exhibit of the American Medical Association subsidized space for eight booths on the Prevention of Asphyxial Death at this exhibit; and

WHEREAS, A favorable impression was created by this exhibit, and the need for an organized movement to prevent asphyxial death was emphasized; and

WHEREAS, It has been satisfactorily established that asphyxiation constitutes a major medical problem, representing a mortality of at least 50,000 deaths a year; and

WHEREAS, A National Committee on Hospitals has been established by the Society for the Prevention of Asphyxial Death, consisting of 300 hospital superintendents from forty-five states, as well as a National Committee on Anesthesia, representing more than 50 per cent of the physicians registered as anesthetists in the 1934 Directory of the American Medical Association; therefore be it

Resolved, That the House of Delegates of the American Medical Association, at the Kansas City session to be held in May 1936, be petitioned to create a Committee on Asphyxia for the further study of this problem.

Resolution on Entrance Requirements to Medical Courses of Educational Institutions

Dr. H. A. Luce, Michigan, presented the following resolution, which was referred to the Reference Committee on Medical Education:

WHEREAS, The relationship between physician and patient embodies many factors which must be considered in the determination of an individual's fitness to become a doctor of medicine; and

WHEREAS, The entrance requirements to the degree of Doctor of Medicine cannot be evaluated on a strictly academic basis; therefore be it

Resolved, That the House of Delegates of the American Medical Association transmit to the Council on Medical Education and Hospitals the recommendation that entrance requirements to the medical courses of the educational institutions of the United States be conditioned on the character, personality, adaptability, social fitness and motivations of the applicant as well as on his academic training.

Resolutions Condemning as Unethical the Listing of Physicians by Specialty in Directories Published by Commercial Concerns

Dr. William R. Brooksher, Arkansas, introduced the following resolutions, which were referred to the Reference Committee on Miscellaneous Business:

WHEREAS, Certain commercial interests are publishing medical directories, listing physicians by specialty and otherwise, as available for insurance and compensation work, and other professional services; and

WHEREAS, Participation by listing in these lay publications merely serves for the profit of the promotors and is furthermore technically indirect solicitation of patients; therefore be it

Resolved, That the Arkansas Medical Society condemns these practices as unethical and forbids its members to continue listing their names in such directories; and be it further

Resolved, That the Arkansas Medical Society requests the House of Delegates of the American Medical Association to take similar action.

Resolution on Granting Approval to Hospitals for General Internships or Residencies

Dr. John H. Fitzgibbon, Oregon, presented by title a resolution dealing with the granting of approval to hospitals for general internships or residencies, which was referred to the Reference Committee on Executive Session.

Resolution on Opposition to Granting a Single Short Wave Frequency to Commercial Concerns for Emergency Communications to Physicians

Dr. John H. Fitzgibbon, Oregon, introduced the following resolution, which was referred to the Reference Committee on Miscellaneous Business:

WHEREAS, the owner of a commercial telephone exchange now selling an emergency telephone service in an Eastern city has petitioned the Federal Communications Commission for the allocation to him of a single short wave frequency to be used in a projected radio-paging service to be sold to the medical profession in the larger cities; and

WHEREAS, The granting of such a petition by the Federal Communications Commission would confer on a commercial concern, organized for profit, a nation-wide monopoly of emergency radio communication with the entire medical profession, to the possible future detriment of the public and the medical profession; therefore be it

Resolved, That the House of Delegates of the American Medical Association go on record as opposing the granting by the Federal Communications Commission of a single short wave frequency to any commercial concern for the purpose of emergency communication with physicians and as favoring the allocation of frequencies for this purpose to individual local stations, and this only following the recommendation of the local medical society in the city concerned.

Resolutions on Contraception

Dr. Olin West, Secretary, announced that he had received a resolution dealing with contraception from the secretary of the Montgomery County, Pennsylvania, Medical Society and from the secretary of the Chicago Gynecological Society, but that this matter had already been dealt with by the appointment of a committee. The resolutions were referred to the Reference Committee on Executive Session.

Communication on Cooperation with United States Constitution Sesquicentennial Commission

Dr. Olin West, Secretary, presented a communication and suggested form of resolution, received from the Director General of the United States Constitution Sesquicentennial Commission, to be adopted by national and state organizations to cooperate with the commission in preparing and executing plans for a fitting celebration of the one hundred and fiftieth anniversary of the formation of the constitution of the United States. These were referred to the Reference Committee on Hygiene and Public Health.

The meeting recessed at 1:15 p. m., to reconvene on Tuesday morning, May 12, at 9:30.

(To be continued)

REGISTRATION AT KANSAS CITY

The total registration at the Kansas City session was 6,824. Below are given two summaries—one by sections and one by states:

Registration by Sections

Practice of Medicine	2,250
Surgery, General and Abdominal	1,141
Obstetrics, Gynecology and Abdominal Surgery	420
Ophthalmology	338
Laryngology, Otology and Rhinology	256
Pediatrics	400
Pharmacology and Therapeutics	39
Pathology and Physiology	171
Nervous and Mental Diseases	193
Dermatology and Syphilology	194
Preventive and Industrial Medicine and Public Health	123
Urology	189
Orthopedic Surgery	180
Gastro-Enterology and Proctology	181
Radiology	266
Miscellaneous Topics	12
Tuberculosis	91
Two or more sections or no section marked	380
Total	6,824

Registration by States

Alabama	35	Nevada	2
Arizona	22	New Hampshire	4
Arkansas	106	New Jersey	38
California	199	New Mexico	27
Colorado	205	New York	243
Connecticut	35	North Carolina	9
Delaware	6	North Dakota	20
District of Columbia	50	Ohio	230
Florida	31	Oklahoma	373
Georgia	42	Oregon	23
Idaho	10	Pennsylvania	128
Illinois	589	Rhode Island	8
Indiana	129	South Carolina	5
Iowa	351	South Dakota	22
Kansas	1,001	Tennessee	85
Kentucky	52	Texas	263
Louisiana	53	Utah	28
Maine	17	Vermont	8
Maryland	20	Virginia	26
Massachusetts	85	Washington	35
Michigan	160	West Virginia	23
Minnesota	174	Wisconsin	123
Mississippi	14	Wyoming	14
Missouri	1,317	Miscellaneous	26
Montana	11		
Nebraska	347	Total	6,824

Medical News

(PHYSICIANS WILL CONFER A FAVOR BY SENDING FOR THIS DEPARTMENT ITEMS OF NEWS OF MORE OR LESS GENERAL INTEREST: SUCH AS RELATE TO SOCIETY ACTIVITIES, NEW HOSPITALS, EDUCATION, PUBLIC HEALTH, ETC.)

ARKANSAS

Personal. — Dr. Wells F. Smith, Little Rock, has been elected president of the state board of health.——Dr. John C. Pate has been elected mayor of Leslie.

State Medical Election.—Dr. Oscar J. T. Johnston, Batesville, was chosen president elect of the Arkansas Medical Society at its recent annual meeting in Hot Springs National Park. Dr. George B. Fletcher, Hot Springs National Park, was installed as president. Vice presidents are Drs. Arthur G. Sullivan, Hot Springs National Park; Ruth J. Ellis, Fayetteville, vice president, and Bonny M. Stevenson, West Memphis. Drs. Royal J. Calcote, Little Rock, and William R. Brooksher, Fort Smith, are treasurer and secretary respectively.

Society News. — At a meeting of the Second Councilor District Medical Society in Heber Springs, April 13, speakers included Drs. Lee Vallette Parmley on fractures; Joseph H. Sanderlin, trichomonas vaginalis vaginitis; Raymond C. Cook, ocular manifestations of some systemic diseases, and Darmon A. Rhinehart, radiation in the treatment of fibroid tumors and menorrhagia from other causes. All are from Little Rock.—— Members of the Sebastian County Medical Society presented the program of the Pulaski County Medical Society, April 13: Drs. Arthur F. Hoge and Charles T. Chamberlain, Fort Smith, spoke on "Surgery in Diabetes" and "Venous Pressure" respectively. —— The Southeast Arkansas Medical Society was addressed at Lake Village, April 13, by Drs. Joseph F. Shuffield, Little Rock, on "Treatment of Fractures" and Guy C. Jarratt, Vicksburg, "Pyuria in Children."

DISTRICT OF COLUMBIA

Medical Bill in Congress.—H. R. 12424 has passed the House, providing for the examination and registration of beauty culturists in the District of Columbia.

The Davidson Lecture.—The competition to select the person to deliver the annual Davidson Lecture is open, the Medical Society of the District of Columbia announces. Physicians and scientists working in the District are eligible. Essays must be signed by a nom de plume, and the identification of the author sealed in an envelop bearing on its surface the same nom de plume. The essay must not have been previously published and must be submitted to the secretary of the district society, 1718 M Street, N. W., Washington, not later than July 1, 1937. The executive committee of the society in January decided to select the Davidson lecturer in this manner rather than by nomination as it was done formerly. The lecture is named in honor of Dr. Edward Young Davidson, who was largely responsible in bringing to completion the society's project of building its own home.

GEORGIA

State Medical Election.—Dr. George A. Traylor, Augusta, was chosen president-elect of the Medical Association of Georgia at the annual meeting in Savannah, April 24, and Dr. Benjamin H. Minchew, Waycross, was installed as president. Vice presidents are Drs. Cornelius F. Holton, Savannah, and James B. Kay, Byron. The next annual meeting will be held in Macon.

ILLINOIS

District Meeting.—The sixty-second annual meeting of the District Medical Society of Central Illinois was held in Springfield, April 21. Clinics at St. John's Hospital were conducted by Drs. Charles B. Reed and Dallas B. Phemister, Chicago, and Ralph A. Kinsella, St. Louis. Others on the program included:

Dr. Frederick W. Light Jr., Springfield, The Importance of Biopsy in Diagnosis.
Dr. Perry J. Melnick, Decatur, Accurate Diagnosis in Lymph Node Enlargements.
Drs. Stuart Broadwell Jr. and Emil L. Bernard, Springfield, Treatment of Stricture of the Esophagus.
Dr. Frank Jirka, state health director, Springfield, Public Health Problems.
Dr. Rolland L. Green, Peoria, Problems in Internal Medicine.
Drs. William J. Morginson and Gerald C. Hunt, Springfield, Diseases of the Skin.
Drs. Samuel N. Clark, Jacksonville, Early Manifestations of Mental Disorder.
Howard J. Shaughnessy, Ph.D., Springfield, Answers to Questions on Interpretation of Laboratory Reports.

Society News.—Dr. Frederick A. Willius, Rochester, Minn., discussed "Coronary Disease with Special Reference to Prognosis in Coronary Thrombosis" before the Peoria City Medical Society, April 21. Dr. Dean Lewis, Baltimore, addressed the society, May 5, on "Endothelial Tumors."——Dr. Gershom J. Thompson, Rochester, Minn., addressed the Stephenson County Medical Society at Freeport, April 9, on "Diseases of the Prostate Gland." —— Dr. Guy M. Cushing, Chicago, read a paper before the Will-Grundy County Medical Society, May 13, entitled "Acute Perforating Ulcer."——At a meeting of the Henry County Medical Society, May 14, Dr. Raymond W. McNealy, Chicago, spoke on "Biliary Tract Disease from the Surgical Aspect," and Dr. Andrew C. Ivy, Chicago, "Therapy of Biliary Tract Disease from the Viewpoint of Applied Physiology." —— At a meeting of the St. Clair County Medical Society in East St. Louis, May 7, Dr. Vincil Rogers Deakin, St. Louis, discussed the Corbus-Ferry vaccine for the treatment of gonorrhea.

Chicago

Hobby Exhibit. — Members of the staff of the Illinois Masonic Hospital held their first annual hobby exhibit as a feature of National Hospital Day, May 12. The exhibit included flowers grown by Dr. John R. Harger; cartoons by Dr. Clifton K. Timmons, and war souvenirs by Drs. James B. Griffin, superintendent of the hospital, and Merritt Owen Wilkins. Dr. Carl F. Steinhoff displayed figures of his drum and bugle corps, fashioned from papier-mâché.

Society News.—At a meeting of the Chicago Pathological Society, May 11, Dr. Rudolph Kronfeld spoke, among others, on "Histopathology of Dental Infections" and Drs. Howard Zeitlin and Ben W. Lichtenstein, "Cysts of the Third Ventricle with Colloid-like Contents."——The Chicago Society of Allergy was addressed, May 18, by Drs. Ralph H. Scull and Francis L. Foran on "Hypersensitiveness in Chronic Flexural Eczema: A Study of Fifty-Five Cases"; Townsend B. Friedman, "Allergy in Children," and Leon Unger, "Asthma in Children: Results of Treatment."——At a meeting of the maternal welfare committee of the Chicago Gynecological Society, May 19, the theme for discussion was "Deaths in 1934 Following Forceps Delivery," presented by Dr. Emil A. Rach.

Remington Medal Awarded to Professor Gathercoal.—Edmond Norris Gathercoal, professor of pharmacognosy, University of Illinois School of Pharmacy, has been awarded the Remington Medal for 1936 in recognition of his service to pharmacy as chairman of the revision committee of the National Formulary VI, his work in promoting higher standards for pharmaceutical products, for research in pharmacognosy and for his many years of service as a teacher. After graduating from the University of Illinois College of Pharmacy in 1895 he entered Rush Medical College, but circumstances prevented completion of the course. He has served on the revision committee of the U. S. Pharmacopeia and has been chairman of the revision committee of the National Formulary since 1929. The medal is presented annually by the New York branch of the American Pharmaceutical Association.

INDIANA

Hospital News. — A supervoltage x-ray machine for the treatment of cancer has recently been installed in St. Joseph's Hospital, South Bend, costing $225,000. The machine generates 400,000 volts of electricity.

Northern Tri-State Meeting.—Dr. William H. Marshall, Flint, Mich., was chosen president of the Northern Tri-State Medical Association at its sixty-third annual meeting in Fort Wayne, April 14. Other officers are Drs. Glenn E. Jones, Lima, Ohio, vice president; Robert H. Elrod, Toledo, Ohio, secretary. The 1937 meeting will be held in Jackson, Mich. Papers were presented by the following physicians:

Max M. Peet, Ann Arbor, Splanchnic Section for the Treatment of Hypertension.
Robert M. Moore, Indianapolis, Conditions Which Occasionally Resemble Coronary Occlusion.
Archibald L. Hoyne, Chicago, Progress in the Management of Contagious Disease.
Anton J. Carlson, Chicago, Mechanism of Control of the Endocrine Glands.
William E. Lower, Cleveland, The Prostatic Question.
Claude F. Dixon, Rochester, Minn., Increasing Curability of Colonic Carcinoma.
Louis H. Segar, Indianapolis, Recent Advances in Pediatrics.
Heinrich A. Reye, Detroit, Importance of the Physician as a Marriage Counsellor.
Clifford J. Barborka, Chicago, A Practical Discussion of Treatment by Diet.
Ferris Smith, Grand Rapids, Reconstructive Surgery.
Claude S. Beck, Cleveland, The Heart as a Surgical Organ (motion pictures).

KANSAS

Personal.—Dr. Otis B. Wyant, Winfield, was guest of honor at a banquet, April 2, given by the Cowley County Medical Society to observe his completion of fifty years in the practice of medicine; he was presented with a fifty year gold membership medal.

Annual Spring Assembly.—The Sedgwick County Medical Society conducted its annual spring assembly in the Allis Hotel, Wichita, April 14. Members of the society and the staff of the Sedgwick County Hospital presented the clinics. Guest speakers were Drs. John W. Duncan, clinical professor of surgery, Creighton University School of Medicine, Omaha, on "Carcinoma of the Breast," and Maurice C. Howard, associate professor of medicine at Creighton University, on "The Irregular Heart."

KENTUCKY

Society News.—Dr. John Walker Moore, dean, University of Louisville School of Medicine, addressed the Louisville Medico-Chirurgical Society, April 24, on "Effect of Heat Upon the Circulation of Normal and Abnormal Individuals."—— Dr. Stephen C. McCoy, Louisville, addressed the Jefferson County Medical Society, April 6, on "Urinary Tract Injuries."

Death Rate Declined in 1935.—The general death rate in Kentucky declined slightly from 11.4 in 1934 to 11.1 in 1935, and the rates for several important causes of death were reduced, according to the state health department. The infant death rate fell from 68.2 in 1934 to 63.4 in 1935. Heart disease caused 5,260 deaths in 1935, 5,456 in the previous year; cancer caused 1,959 last year, compared with 1,989 in 1934. The number for pneumonia fell from 2,400 to 2,273. The diphtheria death rate decreased from 13.6 in 1934 to 10.3 in 1935; that for typhoid from 11.1 to 9.1. Automobile accidents caused 666 deaths as compared with 649 the previous year.

MARYLAND

Hospital News.—Dr. Walter Bauer, Boston, addressed the staff of University Hospital, Baltimore, March 16, on hypertrophic arthritis.

New Venereal Disease Clinic. — The Baltimore health department opened a clinic for the treatment of syphilis in colored women patients, January 7. The new unit will cooperate with the antepartum clinic conducted in the same building by the maternity division of the bureau of child hygiene.

Conference of Health Officers. — The sixteenth annual conference of health officers and boards of health of Maryland was held in Baltimore, May 8. Speakers included Dr. Robert H. Riley, director, Maryland State Department of Health, and the governor, Harry W. Nice. In addition, the following physicians, among others, spoke:

Clifford E. Waller, assistant surgeon general, U. S. Public Health Service, Social Security Act in Its Relation to Public Health.
Lloyd D. Felton, Baltimore, Present Status of Treatment of Pneumonia.
Albert S. McCown, Washington, D. C., Maternal and Child Health in Relation to the Social Security Act.
George H. Ramsey, Albany, N. Y., Modern Methods for the Control of Syphilis.
William Ross Cameron, Hagerstown, Problem of Typhoid Carriers with Special Reference to Recent Outbreaks.

Dr. Huntington Williams, commissioner of health of Baltimore, and Mayor Howard W. Jackson were on the program.

MASSACHUSETTS

Society News.—Dr. Clifford L. Derick, Boston, addressed the Worcester North District Medical Society in Fitchburg, April 22, on "Staphylococcus Infection and Its Treatment."—— A paper on "Frontal Bone Osteomyelitis" by Drs. Charles A. Croissant, Philip H. Cook and John F. Wonson was presented before the Worcester District Medical Society in Worcester, April 8.——Dr. Abraham Myerson, Boston, addressed the New England Society of Psychiatry in East Gardner, April 22, on "The Neuroses."

Dr. Hunt Honored.—Dr. Reid Hunt, who is retiring this year as professor of pharmacology at Harvard Medical School, Boston, was guest of honor at a gathering in the Harvard Club of Boston, April 20, in celebration of his sixty-sixth birthday. Dr. C. Sidney Burwell, dean of the medical school, was toastmaster; speeches were made by A. Lawrence Lowell, LL.D., James F. Norris, Ph.D., Drs. Ross G. Harrison, New Haven, Conn., Ko K. Chen, Indianapolis, William Worth Hale and Gustave Philip Grabfield, Boston. Presentation was made of an etched portrait of Dr. Hunt, which will hang in the medical school.

Portrait of Dr. Keep.—A portrait of Dr. Nathan Cooley Keep, a graduate of Harvard Medical School and the first dean of the Harvard Dental School, was unveiled in Vanderbilt Hall of the university, April 3, as a special feature of the annual Alumni Day celebration or joint clinical meeting of the Harvard Dental Alumni Association and the Harvard Odontological Society. The portrait was the gift of the artist, Mrs. Marie Danforth Page, whose husband is a grandson of Dr. Keep, and it was unveiled by Miss Elizabeth Keep, the great-granddaughter of Dr. Keep. Dr. Keep graduated from the medical school in 1827. He assisted in the founding of the Massachusetts Dental Society, serving as its first president.

MICHIGAN

Medical Museum.—A museum of old surgical instruments and medical appliances has been established in the University Hospital, University of Michigan School of Medicine, Ann Arbor. Dr. Frederick A. Coller, professor of surgery at the medical school, is soliciting objects which may be given or loaned.

Committee to Study Medical Jurisprudence. — A joint committee of physicians and attorneys was appointed, March 18, by the state bar association and the Michigan State Medical Society to consider problems of medical jurisprudence. Members of the committee are: Drs. Alpheus F. Jennings and Charles S. Kennedy, Detroit; Robert H. Denham, Grand Rapids; Clifford W. Brainard, Battle Creek, and attorneys Miles H. Knowles and Herbert V. Barbour, Detroit; G. Douglas Clapperton, Grand Rapids; Francis F. Shields, Howell, and Claude W. Coates, Sault Ste. Marie.

MINNESOTA

Dr. Maxcy Named Head of Department.—Dr. Kenneth F. Maxcy, professor of preventive medicine and bacteriology, University of Virginia School of Medicine, Charlottesville, has been appointed professor of preventive medicine and public health and head of the department at the University of Minnesota School of Medicine. He succeeds Dr. Harold S. Diehl, who last year was appointed dean of the medical sciences. Dr. Maxcy graduated from Johns Hopkins University School of Medicine in 1915. He represented the U. S. Public Health Service at the malaria conference of the League of Nations in Geneva in 1928.

MISSISSIPPI

Society News. — A motion picture on traumatic surgery formed the program of the Coahoma County Medical Society and the medical staff of the Clarksdale Hospital recently in Clarksdale.—— The East Mississippi Medical Society was addressed in Meridian recently by Drs. Franklin G. Riley, Meridian, on "Pyelonephritis in Children," and Chalmers H. Moore, Birmingham, Ala., "Scope of Neurosurgery."——A paper by Dr. Archie E. Gordin, Jackson, on "Present Status of Gynecology Compared with Gynecology Twenty Years Ago" was read before the Issaquena-Sharkey-Warren Counties Medical Society in Vicksburg recently by Dr. Albert Gayden Ward, Jackson.——Dr. J. Rice Williams, Houston, discussed "Diagnosis and Treatment of Cancer" before a recent meeting of the Pontotoc County Medical Society.

MISSOURI

Dinner in Honor of Dr. Ewing.—Dr. James Ewing, New York, was guest of honor at a dinner in St. Louis, recently, given by the board of directors and woman's auxiliary board of the Barnard Free Skin and Cancer Hospital. Dr. Ewing addressed the dinner meeting on "Responsibility of the Public in Cancer Service."

State Medical Election.—Dr. Dudley S. Conley, dean of the University of Missouri School of Medicine, Columbia, was chosen president of the Missouri State Medical Association at its recent annual meeting in Columbia, and Dr. Ross A. Woolsey, St. Louis, was installed as president. The next annual meeting will be held in Cape Girardeau.

Society News.—At a meeting of the Jackson County Medical Society, April 7, speakers were Drs. James Q. Chambers Jr. on "Geriatrics—Diseases of Old Age"; Radford F. Pittam, "Carotid Denervation in Cerebral Angiospasm," and Clarence E. Sanders, "Dynamics of the Circulation." All are from Kansas City.——Dr. Roy Glenwood Spurling, Louisville, discussed epilepsy at a meeting of the Kansas City Academy of Medicine recently.——At a meeting of the St. Louis Trudeau Club and the St. Louis Medical Society, April 7, Dr. Henry C. Sweany, Chicago, discussed "Pathogenesis of Pulmonary Tuberculosis." ——Dr. Charles Macfie Campbell, Boston, addressed a joint

meeting of the St. Louis Medical Society and the Missouri Society for Mental Hygiene, May 3, on mental health.——The St. Louis Medical Society was addressed, March 17, by Drs. Roland M. Klemme on "Trigeminal Neuralgia—Accurate Differential Section"; Fred W. Bailey, "The Threat of Neglected Cholelithiasis," and Edward V. M. Mastin, "Shoulder and Clavicular Pain in Appendicitis."

Conference of Social Work.—Social and economic security was the theme of the meeting of the Kansas Conference of Social Work with the Missouri Association for Social Welfare at the Hotel Muehlebach, Kansas City, April 2-4. The speakers included:

Dr. Willam J. Stewart, surgeon, state crippled children's service, University Hospitals, Columbia, Administration of the Social Security Law in Missouri.
Dr. Paul J. Zentay, St. Louis, The Social Worker and the Problem Child.
Dr. George Wilse Robinson Jr., Kansas City, The Effects of the Depression on the Mental Life of the Child.
Dr. Ralph I. Canuteson, Lawrence, Kan., The Tuberculosis Problem in Student Health Service.
James H. Scott, chairman, state board of administration, Topeka, Kan., Cooperation of Private and Public Agencies with Parole, Probation and Prison Authorities.
Dr. Karl A. Menninger, Topeka, Social and Economic Factors Relating to Personal and Family Life.

NEW YORK

Study of Nutrition in Adult Life.—A six year study of the rôle of diet in the last half of adult life will be undertaken at the New York State College of Agriculture at Cornell University, Ithaca, Dr. Livingston Farrand, president of Cornell, recently announced. The Rockefeller Foundation has given $42,500 to support the study for six years. The new investigation was suggested by an observation that the diets which promote rapid growth in young rats were antagonistic to longevity and that the life span of the animals was increased by diets low in calories, diets the opposite of the optimal feeding for growth of the young.

Academy Honors Dr. Potter.—At the annual dinner of the Buffalo Academy of Medicine and the Medical Society of the County of Erie, April 3, the academy presented a gold medal to Dr. Irving W. Potter, who has practiced in Buffalo for forty-five years, thirty years as a specialist in obstetrics. Dr. Allen Jones made the presentation and brief addresses were made by Dr. James Herbert Donnelly, president of the academy, and Dr. Milton G. Potter, president of the county medical society and son of the guest of honor. The medal bears on its face an engraving of Dr. Potter and on the reverse side an inscription. Dr. Potter is a native of Buffalo and was graduated from the University of Buffalo School of Medicine in 1891.

Supervision of Typhoid Carriers.—Fifty new typhoid carriers were registered in upstate New York during 1935, exclusive of those in state institutions. Twenty-four were removed from the register, leaving 361 under supervision Dec. 31, 1935. Forty-one of the new carriers were discovered through investigation of sporadic cases of typhoid, six through the requirement of release cultures from cases of typhoid, two on evidence submitted by other health departments, and one through examination of bile obtained during an operation. Of those removed from the list, fifteen died, five were released after negative tests following cholecystectomy, and four moved outside the jurisdiction of the state department of health. Four per cent of the persons who were reported as having typhoid in 1934 and having recovered have been found to be chronic carriers, *Health News* reported. One outbreak of seven cases of typhoid was traced to a carrier during 1935.

New York City

Mental Status of Criminals.—Of 2,590 offenders examined in the psychiatric clinic of the Court of General Sessions within the past year, less than 1 per cent were found to be definitely insane, according to a report by Drs. Walter Bromberg and Charles B. Thompson of the psychiatric division of the department of hospitals. Of that number 228 were classified as "immature adolescent"; 150 "weak-willed and suggestible"; 129 as "neurotic"; 162 as "unstable and impulsive" and 396 as "aggressively antisocial." Intelligence tests resulted as follows: 1,572, or about 60 per cent, average or low average intelligence; 220, intelligence above the average, and the remainder below. Mentally defective offenders numbered only fifty-seven. Native born persons made up 77 per cent of the total. Twenty-three per cent of the group were between 16 and 20 years of age.

Report of the Diabetes Association.—The New York Diabetes Association, which functions as a committee of the New York Tuberculosis and Health Association, has issued its first annual report. The association has organized the following committees: internal medicine, surgery, statistics and department of health relations, lay education, lay committee, apparatus and the professions of nursing, social service and dietetics. Among the year's activities described are: a survey of diabetic clinics in the city, from which a directory was compiled; preparation of pamphlets on diabetes for physicians and laymen; studies of nostrums and apparatus; studies of diabetes incidence; investigation of the amount of insulin sold in the United States. A committee on podiatry has collected material relating to the care of the feet in diabetic persons and is now working toward specific recommendations on the subject. Arrangements have also been made for organization of a committee on dentistry.

Personal.—Dr. Marshall C. Balfour, representative in Greece of the International Health Board of the Rockefeller Foundation, has been awarded the silver medal for distinguished services by the Greek Academy of Sciences, Arts and Letters, in recognition of research in the field of malaria control in the Peloponnesus and in the Macedonian towns of Drama and Cavall.——Dr. Frank Fremont-Smith, until recently assistant professor of neuropathology, Harvard Medical School, Boston, has been appointed in charge of the medical division of the Josiah Macy Jr. Foundation.——Dr. Anna W. Williams, for many years assistant director of the laboratories of the New York City Department of Health, was presented with a testimonial scroll by the Women's Medical Society of New York State at its annual dinner, April 27, "in recognition of her forty years' service to New York City and work in advancing the cause of the woman doctor."——Dr. David Seegal has been appointed to fill the newly created position of director of the research division of chronic diseases in the city department of health.——Dr. Girolamo Bonaccolto has been appointed assistant professor of clinical ophthalmology at Columbia University College of Physicians and Surgeons.

NORTH CAROLINA

Personal.—Dr. Isaac R. Wagner, head of the Veterans' Administration Facility at Memphis, Tenn., has been transferred to the facility at Oteen.

Society News.—Speakers at a meeting of the Mecklenburg County Medical Society, Charlotte, April 7, were Drs. Clyde C. Phillips, on "Irradiation Therapy in Uterine Bleeding from Causes Other than Cancer"; James R. Adams and George Preston Nowlin, "Atresia of the Vulva," and Edward J. Wannamaker Jr., "Insulin."

OHIO

Ten Year Diphtheria Record.—A recent study of the occurrence of diphtheria in Ohio during the past ten years showed that an average of 61 cases per hundred thousand of population, a death rate of 4.4, had been reported. Twenty-one cities had no deaths from diphtheria during the period. Thirty-one had case or death rates higher than the average; these included the four largest cities, Cleveland, Cincinnati, Toledo and Columbus. Case rates were 98, 64, 53 and 81, respectively, for these cities, and the death rates were 8.5, 4.1, 4.7 and 3.8, respectively.

Graduate Course at Youngstown.—The Mahoning County Medical Society presented its ninth annual Post Graduate Day in Youngstown, April 30. The guest lecturers, all of New York, gave two lectures each during the day, as follows:

Dr. Walter W. Palmer, Thyroid Function and the Low Basal Metabolic Rate; Problems in the Medical and Surgical Treatment of Hyperthyroidism.
Dr. Dana W. Atchley, The Nephrotic Syndrome; The Rôle of Peripheral Circulatory Failure in Medicine.
Dr. Allen O. Whipple, Recent Advances in Surgery of the Pancreas; Medical and Surgical Treatment of Thrombocytopenic Purpura.
Dr. Alvan L. Barach, Therapeutic Use of Helium in Asthma and Obstructive Lesions in the Larynx and Trachea; Recent Advances in Treatment of Pulmonary Edema, Cough and Dyspnea.

Health Projects in Social Security Program.—The state director of health, Dr. Walter H. Hartung, has appointed an advisory council to assist in the administration of Ohio's program under the maternal and child health provisions of the social security act. It is expected that the program will be largely educational, including antepartum instruction to mothers and "refresher" courses in obstetrics and pediatrics for physicians. Members of the council are:

Dr. John H. J. Upham, President-Elect of the American Medical Association and dean, Ohio State University College of Medicine, Columbus.
Dr. Albert Graeme Mitchell, professor of pediatrics, University of Cincinnati College of Medicine, Cincinnati.
Dr. Elmer G. Horton, professor of pediatrics, Ohio State University College of Medicine, Columbus.

Dr. Henry J. Gerstenberger, professor of pediatrics, Western Reserve University School of Medicine, Cleveland.
Dr. Richard A. Bolt, director, Cleveland Child Health Association.
Dr. Sterling H. Ashmun, Dayton, state chairman, American Academy of Pediatrics.
Ewing V. Burns, D.D.S., Findlay, formerly president, Ohio State Dental Association.
Dr. Willoughby D. Bishop, Greenville, secretary, Ohio Federation of Public Health Officials.
Dr. Arthur J. Skeel, Cleveland, representing the Association of Obstetricians and Gynecologists.
Dr. Walter W. Brand, Toledo, vice president, Hospital Obstetric Society of Ohio.
Dr. Scott C. Runnels, Cleveland, representing the American Committee on Maternal Welfare.
Mrs. Elizabeth T. August, R.N., Columbus, secretary, Ohio State Nurses' Association.

Funds available under this part of the act will amount to $102,719.34 annually, according to the *Ohio State Medical Journal*. Under title VI of the act Ohio will receive $286,100 this year for aid to local health districts. This part of the program will be under the direction of Dr. Reaves W. DeCrow, Columbus, chief of the bureau of health organization, state department of health. An application is pending for funds to enlarge the bureau of occupational diseases, which is directed by Dr. Emery R. Hayhurst, Columbus.

SOUTH CAROLINA

State Medical Election.—Dr. Julius H. Taylor, Columbia, was chosen president-elect of the South Carolina Medical Association at the annual meeting in Greenville, and Dr. Robert C. Bruce, Greenville, was installed as president. Dr. Edgar A. Himes, Seneca, who has served as secretary for twenty-six years, was reelected. The next annual meeting will be held in Columbia.

TENNESSEE

State Medical Election.—Dr. Wilson L. Williamson, Memphis, was chosen president of the Tennessee State Medical Association at its recent annual meeting in Memphis, succeeding Dr. John B. Steele, Chattanooga. Vice presidents are Drs. John E. Powers, Jackson; James O. Walker, Franklin, and Lee K. Gibson, Johnson City. Dr. Harrison H. Shoulders, Nashville, was reelected secretary. Knoxville was designated as the place for the next annual meeting, April 13-15, 1937.

Society News.—The following Memphis physicians addressed the Tri-County Medical Society (Carroll, Henry and Weakley counties), McKenzie, recently, as follows: Drs. Hubert K. Turley, on "Pyelitis of Pregnancy"; Frank W. Smythe, "Diagnosis of Intestinal Obstructions"; James B. Stanford, "Disease of the Eye," and Conley H. Sanford, "Modern Trends in Treatment of Lobar Pneumonia."——Drs. Arthur G. Quinn and Jerome P. Long Jr., Memphis, presented papers before the Memphis and Shelby County Medical Society, April 7, on "Classification of Diseases in the New-Born" and "Antepartum Hemorrhage" respectively.

TEXAS

Personal.—Dr. John S. Cooper, Greenville, has been appointed city health officer to succeed Dr. Benjamin F. Arnold.——Dr. Charles D. Lipscomb, Quitman, was appointed health officer of Wood County, April 16.

Society News.—At a meeting of the Dallas County Medical Society, May 14, Drs. Charles W. Flynn and Hardy A. Kemp discussed "Problems in Gastric Surgery with Special Reference to Gastric Cancer" and "Certain Applications of the Bacteriology of the Brucella Group to the Clinical Problems of Brucellosis."

Old Age Assistance Plan.—The Social Security Board has approved the Texas old age assistance plan. Under this plan, which will go into effect June 1, it is estimated that 60,000 needy aged persons will be eligible for assistance and that the monthly cost will be about $1,200,000 on the basis of an average monthly grant of $20 per person. The program will be administered through the twenty district offices of the Texas Old Age Assistance Commission.

VIRGINIA

University News.—Dr. Arnold R. Rich, Baltimore, gave the Alpha Omega Alpha Lecture at the University of Virginia Department of Medicine, recently, on "Immunity in Tuberculosis." Alfred Chanutin, Ph.D., professor of biochemistry, received the Edward N. Gibbs prize of the New York Academy of Medicine for the third consecutive year; the stipend is to be applied to research on diseases of the kidney.

Personal.—The board of managers of the Virginia Home for Incurables, Richmond, gave a reception in honor of Dr. Henry Ward Randolph, head of the medical staff of the institution. He was presented with a large silver platter, in recognition of his more than twenty-five years' service with the hospital.——The staff of the Eastern State Hospital, Williamsburg, gave a reception in honor of the superintendent, Dr. George W. Brown, celebrating his twenty-fifth anniversary in that position.

WASHINGTON

Health at Tacoma.—Telegraphic reports to the U. S. Department of Commerce for the week ended May 9 from eighty-six cities with a total population of 37 million indicate that the highest mortality rate (21.5) appears for Tacoma and that the rate for the group of cities as a whole is 12.6. For the corresponding period last year the rate was 12.4 for Tacoma and 12 for the group of cities. The annual rate for eighty-six cities for the nineteen weeks of 1936 was 13.5 as against a rate of 12.6 for the corresponding period of the previous year. Caution should be used in the interpretation of these weekly figures, which show wide fluctuations. The fact that some cities are hospital centers for large areas outside the city limits or that they have a large Negro population may tend to increase the death rate.

WISCONSIN

Medical Society Film.—The Medical Society of Milwaukee County is preparing a motion picture film portraying all the activities of the society, under the direction of Dr. Herman A. Heise. The necessary equipment for the picture will be provided by members of the society.

University News.—Dr. John H. Skavlem, Cincinnati, addressed the University of Wisconsin Medical Society, March 31, on "Basic Points in Roentgen Ray Studies of Anatomy and Pathology of the Lung." Dr. Frank J. Hirschboeck, Duluth, Minn., spoke at the medical school convocation, recently, on "The Nervous Patient."

William Snow Miller Lecture.—Dr. Arno B. Luckhardt, professor of physiology, University of Chicago, gave the ninth William Snow Miller Lecture at the University of Wisconsin, April 17. His subject was "A Neglected Chapter in the History of Anatomy Illustration and Instruction." The William Snow Miller Lectureship was established in 1928 by the Phi Beta Pi fraternity. It is given near the time of Dr. Miller's birthday, March 29.

Society News.—Speakers before the Medical Society of Milwaukee County, April 10, were Drs. Newell C. Gilbert, Chicago, on "Relation of the General Practitioner to Clinical Investigation"; James C. Sargent, Milwaukee, "Hydronephrosis: A Clinical Study of the Structural Involution That Follows Release of Obstruction," and John L. Yates, Milwaukee, "Cancer Cell Antigens: Their Practical Suggestions."——Dr. Palmer W. Good, Kenosha, addressed the Milwaukee Oto-Ophthalmic Society, March 10, on "Testing the Visual Acuity of the School Child." Dr. William E. Grove, Milwaukee, addressed the society, April 14, on "Septic and Aseptic Types of Cavernous Sinus Thrombosis."

Federal Funds for Graduate Courses.—Federal authorities have approved the use of funds released to the state board of health under the social security act to provide graduate courses in obstetrics and pediatrics for practicing physicians in Wisconsin. At a recent meeting of representatives of the state board of health, the State Medical Society of Wisconsin and the University of Wisconsin Medical School, two courses were tentatively outlined to begin about May 15 in circuits of five centers each. The instructional staff will be chosen from the faculty of the medical school. Funds have been made available only until June 30, but it is expected that appropriations will be made for continuation of this work during the next fiscal year.

GENERAL

Academy Exhibit.—The American Academy of Ophthalmology and Otolaryngology announces that a scientific exhibit will be a part of its meeting in New York, September 26-October 3. Applications for space should be sent direct to Dr. Samuel J. Kopetzky, 51 West Seventy-Third Street, New York, for otolaryngology, and Dr. Ralph I. Lloyd, 14 Eighth Avenue, Brooklyn, for ophthalmology.

Number of Defectives Sterilized.—The Human Betterment Foundation recently reported that, up to January of this year, 23,092 insane and feebleminded persons had been sterilized in the twenty-eight states having sterilization laws. More than 10,000 operations have been performed in California. Other states that had reported more than 1,000 sterilizations each were Kansas 1,509, Michigan 1,555, Minnesota 1,154, Oregon 1,047 and Virginia 2,386.

Society News.—The Pan-Pacific Surgical Congress will be held in Honolulu, August 6-14. An excursion has been planned to leave San Francisco July 31 and return August 22 to include the congress. Information may be obtained from Dr. George W. Swift, 902 Boren Avenue, Seattle, president of the congress. ——Dr. Nathan C. Foot, New York, was elected president of the American Association of Pathologists and Bacteriologists in Boston, April 9; Dr. Earl B. McKinley, Washington, D. C., vice president, and Dr. Howard T. Karsner, Cleveland, secretary. The next annual meeting will be held at Northwestern University Medical School, Chicago, March 25-26, 1937.

Automobile Accidents in Cities in 1935.—Eighty-six cities with an estimated population of thirty-seven million reported 8,799 deaths from automobile accidents in 1935 as compared with 9,060 deaths in 1934, according to the bureau of the census of the U. S. Department of Commerce. Forty-eight of the eighty-six cities showed a decrease in the total number of fatalities from automobile accidents, thirty-six showed increases, and two cities reported the same number of deaths in 1935 as in 1934. Decreases are evident in fatality rates for Utica, N. Y., Salt Lake City, Lynn and Fall River, Mass., while increases are shown for Nashville, Tenn., Paterson, N. J., Youngstown, Ohio, Fort Wayne, Ind., and San Diego, Calif.

Medical Bills in Congress.—*Changes in Status:* S. 3334 has been reported to the House, providing for the care and treatment of members of the National Guard, Organized Reserves, Reserve Officers' Training Corps, and Citizens' Military Training Camps who are injured or contract disease while engaged in military training. S. 4390 has passed the Senate, providing that appointments to the Medical Administrative Corps shall be restricted to pharmacists who are graduates of recognized schools or colleges of pharmacy requiring four years of instruction for graduation, and further providing that the number of such pharmacists in the corps shall not exceed sixteen. *Bills Introduced:* S. 4627, introduced by Senator Barkley, Kentucky, proposes to create in the Bureau of the Public Health Service a Division of Stream Pollution Control.

Changes in Status of Licensure.—The Wisconsin State Board of Medical Examiners has reported the following action:

Isaac Monroe Brown, whose last known address was New London, Wis., license revoked on reading of court records for performing of illegal operations.

The New Jersey Board of Medical Examiners has reported the following action:

Luis E. Viteri, Ambato, Ecuador, S. A., and Leslie F. Clary, Kings Park, licenses revoked recently for failure to present evidence of having become citizens of the United States.

The State Medical Board of Ohio reported the following action:

License of Elam L. Falvey, who took his medical course and received licenses to practice in Texas and Ohio under the name of Arthur L. Keyes, revoked January 7. His Texas license was revoked in 1935. Falvey was indicted in Ohio in October 1935 for filing with the state medical board a false affidavit of identity. At his trial in December he pleaded guilty and was sentenced to a year of probation, required to leave the state and to surrender his license.

The Board of Medical Examiners of Maryland announces the following action:

Dr. Thomas Stathem Sheppard, Millville, N. J., license revoked. Dr. Sheppard's license to practice medicine in New Jersey was revoked, March 27, 1935, for his conviction on a charge of criminal abortion

The Colorado State Board of Registration in Medicine reports the following:

Dr. Lewis J. Greenfield, Denver, license revoked, April 7, for violation of the Harrison Narcotic Act.

The Oregon state board of medical examiners has recently reported the following action:

License of Dr. Walter R. Anderson, Portland, which was revoked in 1933, was reinstated April 1.

License of Dr. Isaac D. Bartell, Dallas, revoked January 17, for unprofessional conduct.

The Maine Board of Registration in Medicine announces the following action:

Dr. Joseph R. Woolf, March 10, Portland, license revoked because of his conviction of violation of the Harrison Narcotic Act and for fraudulent buying and dispensing of morphine.

Committees to Study Silicosis.—Four committees were appointed by Secretary Perkins, May 2, to work out a method for ending silicosis, the New York *Times* reported. Heads of the committees are Dr. Royd R. Sayers of the U. S. Public Health Service, who has been placed in charge of the medical committee; Warren A. Cook of the Connecticut State Department of Health, Hartford, of the engineering committee; V. P. Ahearn, Washington, D. C., economic, legal and insurance, and L. M. Metcalfe Walling, Providence, R. I., labor commissioner, in charge of the regulatory and administrative committee. Fifty-three men have been named to comprise the committees, including health experts, representatives of employers, workers, insurance companies, government, technical societies and engineers. Their appointment grew out of a national conference held to discuss the problem.

Expenditures by Cities for Health Services.—The Bureau of the Census recently issued a compilation of financial statistics of cities showing the total amounts spent for health service, the per capita amounts and the percentages of the appropriations for all departments in 1934, 1933 and 1926. Among cities with populations over 500,000, Detroit had in 1934 a per capita for health purposes of $1.89, the highest of the group. Others were Boston $1.83, Buffalo $1.64, New York $1.53, Cleveland $1.51 and Milwaukee $1.46. In the next group of cities, between 300,000 and 500,000 population, the highest were Newark, N. J., $2.63; Rochester, N. Y., $2.04; Jersey City, N. J., $1.92; Minneapolis, $1.85, and Seattle, $1.46. Among cities with populations between 100,000 and 300,000 the highest per capita expenditures for health were in Yonkers, N. Y., $2.01; Worcester, Mass., $1.95; New Bedford, Mass., $1.74; Somerville, Mass., $1.67; Trenton, N. J., and Providence, R. I., $1.61.

HAWAII

Personal.—Alvin R. Lamb, Ph.D., formerly of the U. S. Public Health Service and the Leprosy Investigation Station, Honolulu, has become research associate at the Experiment Station of the Hawaiian Sugar Planters' Association, Honolulu, according to *Science*.

Lectures on Cancer.—Dr. Max Cutler, director of the tumor clinic of Michael Reese Hospital and associate in surgery, Northwestern University Medical School, Chicago, began a series of twelve lectures on cancer, May 2, under the auspices of the Hawaiian Society for the Control of Cancer, Honolulu. Dr. Cutler also addressed the annual meeting of the Territorial Medical Association in Honolulu, May 2-4.

FOREIGN

Information Bureau in Paris.—A "Bureau of Medical Relations with Foreign Countries" has been opened at the University of Paris, where physicians and students may obtain information they desire concerning graduate courses and hospital services. Foreign students and physicians are invited to communicate with the bureau on their arrival in Paris.

Association for Protection of Humanity in War.—At a conference in Monaco, February 10-12, called by the medicolegal commission created by the permanent committee of the International Congresses of Military Medicine and Pharmacy, there was formed the Association for the International Protection of Humanity. The new association, which will have headquarters in Monaco, will have two objects: first, to work to restrain the use of force in international relations and, failing that, to subject the use of force to rules of law in accord with knowledge; and, second, to foster the growing respect not only for life and security but for the liberty and the dignity of human beings. It plans to work in association with other international associations and institutions for diminution of the suffering caused by war. The president is Ernest Mahaim, former president of the International Labor Bureau, and the general secretaries are Dr. J. Voncken, director of the International Office of Military Medicine, Liége, Belgium, and Albert de la Pradelle, professor in the faculty of law at the University of Paris. Forty-seven persons representing thirteen countries attended the February meeting in Monaco. For information address Dr. Voncken, Quai de Plaisance, Monaco.

Deaths in Other Countries

Robert Bárány, professor of diseases of the ear, nose and throat, University of Upsala, Sweden, and winner of the Nobel prize in medicine in 1914, died April 8, aged 60. Dr. Bárány was a native of Austria and was appointed to the faculty of the University of Vienna in 1909. During the World War he was made prisoner by the Russians but was later released, according to the New York *Times*. He went to Upsala in 1917. He received the Nobel prize for his studies on the interior structure of the ear.

CORRECTION

Units of Vitamin D.—In a footnote in the article by Vrtiak and Lang entitled "Observations on the Treatment of Chronic Arthritis with Vitamin D" (THE JOURNAL, April 4, page 1162), it was stated that the viosterol preparation contained the equivalent of 850,000 units of vitamin D per gram. This is an error. The footnote should have read 1,000,000 units per gram.

Foreign Letters

LONDON

(From Our Regular Correspondent)

April 4, 1936.

Nutrition and National Health

Sir Robert McCarrison delivered to the Royal Society of Arts three lectures on nutrition and national health. He said that the greatest single factor in the acquisition and maintenance of good health is perfectly constituted food. The level of the physical efficiency of the Indian races was, above all else, a matter of diet. No other single factor—race, climate, endemic disease, and the like—had so profound an influence on their physique. The physique of the races of northern India was strikingly superior to that of the southern, eastern and western races. The former lived on whole wheat, milk and milk products, vegetables and fruit; the latter, largely on rice, and inferior cereals which were further reduced in nutrient value by parboiling, milling or polishing, and they had little milk or milk products. Experiments on a large number of albino rats with these two diets showed a similar contrast. On the former diet they thrived and disease was completely absent. But if the milk was left out or reduced, respiratory and gastro-intestinal diseases began to appear, especially if the consumption of fresh vegetables was also limited. Rats were fed on a diet common among the poorer classes of England—white bread, margarine, oversweetened tea with little milk, boiled cabbage and boiled potato, tinned meat and cheap jam. This diet has many faults of which vitamin and mineral deficiencies are the chief. The rats did not increase in weight; their coats were lacking in gloss. They were nervous. They lived unhappily together and by the sixtieth day began to eat the weaker members. The experiment was continued for 190 days, a period which would correspond to about sixteen years in man. The survivors were then killed. Disease of the lungs was twice as common as in the properly fed group. Gastric ulcer, warty outgrowths of epithelium in the stomach, gastritis, enteritis and colitis were very frequent, while they were absent in the properly fed. These ailments are frequent among the similarly fed English as well as among the poorer Madrassi. Peptic ulcer was very common in the south of India and rare in the north.

The conspicuous fault of the diet of the British people, according to McCarrison, is the extensive use of vitamin-poor wheat flour and the inordinate use of vitaminless sugar. This gave rise to insufficiency of vitamin B in the diet, unless it was supplemented with a sufficiency of milk, eggs, fruits, nuts and vegetables. Other deficiencies were in first-class proteins, calcium, iron and vitamins A and D. The result was many forms of ill health and a variety of inflammatory and degenerative diseases.

Presentation to Sir Almroth Wright

In the library of the inoculation department of St. Mary's Hospital Sir Henry Dale unveiled a portrait bust of Sir Almroth Wright and presented it to him with a small book containing the following engrossed address from 250 colleagues:

"On the attainment of your 75th year, we, your colleagues, pupils and friends, take the opportunity of offering you a token of our esteem and our warm personal affection. We wish to commemorate your outstanding work in immunology, your development of vaccine therapy, and your founding of the inoculation department of St. Mary's Hospital, where, so far as in us lies, your work shall continue. We would commemorate, in particular, that scientific humbleness of heart and that freshness of vision which have helped you in unveiling the tangles of contemporary medical thought and which, throughout your career, have been an inspiration to your fellow workers."

Sir Henry Dale referred to the contrast between the toll which typhoid took in the South African War and the experience of the much greater conflict two decades ago, when one weapon was put out of action by the application of Wright's work. His results had not been obtained by random shots but from the building of a fabric of ingenious theories which gave logical coherence to the observations made, until sometimes his friends feared that he might overtax the resources of the Greek lexicon in devising a nomenclature to give precision to his ideas.

In reply, Sir Almroth Wright said that when people said that work was pleasant his reply was that they had not worked at anything worth while. It might be great fun to work in a laboratory and get results, but it was no fun to work in a laboratory and fail to get results. If any one came to him proposing to do medical research he asked: Have you counted the cost? Do you know how much disappointment there is in that work, and how little satisfaction? The best reward of work was the praise of one's compeers.

Bill to Prevent Unscrupulous Advertising

The very moderate bill to prevent only the worst forms of unscrupulous advertising of alleged remedies, described in previous letters to THE JOURNAL, has been lost. Its second reading was moved in the house of commons by Mr. G. A. V. Duckworth, who said that its provisions were approved by representatives of the proprietary medicines trade, the Advertising Association, the County Council Association, the Pharmaceutical Society and many other bodies. It sought merely to remove some of the worst abuses in the advertisement and sale of patent medicines and secret remedies. The report of a select committee of the house of commons showed the volume and growth of the traffic in patent medicines and the inadequacy of the law to protect the public from fraud. It emphasized the dangers to the public in advertising claims to cure diabetes, cancer, tuberculosis and other diseases listed in the bill. The report stated that such advertising had grown to enormous proportions and that agencies had been established in which the unscrupulous could buy thousands of names of persons suffering from these diseases. Reputable newspapers had now established a voluntary form of censorship, which excluded the worst type of advertisement, but all newspapers were not so particular. The public were still exposed to great frauds. In comparison to the protection given by law in other countries, and particularly in the British dominions, it might well be said that the bill did not go half far enough.

In seconding the bill Capt. G. S. Elliston referred to the long campaign of *Truth* against unscrupulous quacks which gave rise to the select committee mentioned, and to the publication by the British Medical Association of "Secret Remedies," which showed the shameless exploitation of sufferers. Lord Bledisloe had said: "Probably never has such a tissue of fraud and falsehood been disclosed by any parliamentary committee." Its report was made in August 1914 and lay dormant during the war, but it produced important results, as many newspapers put into effect some of its recommendations. The bill was sorely needed and long overdue.

The rejection of the bill was moved by Sir Arnold Wilson, who said that it tended unduly to restrict the activities of the unorthodox practitioner. The house should pause before it accepted the assumption that most remedies and alleviations not approved by the medical profession were fraudulent. He had received testimony from men and women, known to him for many years, that unorthodox remedies had done them good. The rest of his long speech was, like this, irrelevant to the issue. He even complained that the bill did not touch the so-called cures for asthma, bronchitis, influenza and the common cold.

After further opposition the small number of members present led to a count, and it was found that forty members were not

present. The house was therefore "counted out" and the bill lost. Thus in the words of the *British Medical Journal*, "a very hard piece of public-spirited work came to a miserable end." This deplorable result can be partly attributed to the suspicion of a large section of the public that when the medical profession opposes irregular practices it is actuated by selfish motives. One speaker was afraid that the bill was "designed to safeguard the business of qualified doctors and chemists far more than the health of the public." Propaganda of the usual misleading type was carried on outside the house against the bill and pressure brought to bear on members. The idea of freedom in this very free country goes far beyond anything known on the European continent and ends in license. It includes toleration of antivaccinators, bone-setters and all kind of quacks and even, as in this instance, "cancer curers." However, a bill of this kind is certain to be passed sooner or later, probably as a government measure. If this bill had been brought forward by the government the "counting out" would not have been possible.

Thirty Million Gas Masks

The elaborate preparations for the protection of the civil population against attacks with poison gas, which are being announced from time to time, are a sad reflection on our boasted civilization. The latest are plans to train 77,000 members of the St. John Ambulance Brigade in antigas work. In this the Air Raids Precautions Department of the government will assist. Some thousands of men have already been trained and it is proposed to train women. The public baths in London may be used as decontaminating centers. It is also proposed to supply antigas containers for babies in the event of war. Work on the mass production of 30,000,000 gas masks, which will be distributed free in the event of war, has been started. Their design has been approved by the government. They will cost about 50 cents each. Although considered only the second line of defense, sealed doors and windows being the first, the mask will resist the heaviest concentration of gas for a quarter of an hour and normal gas conditions for four or five hours. Rapid progress is being made in setting up local air raid precautions committees. During the coming year 600 police and fire department officers will be trained as instructors at the new Civilian Gas School near Gloucester.

Sir Archibald Garrod

Sir Archibald Garrod, the distinguished physician and chemical pathologist, has died at the age of 78 years. The son of a distinguished physician, Sir Alfred Garrod, he was educated at Oxford and St. Bartholomew's Hospital, to which he became physician. In 1890 he published "A Treatise on Rheumatism and Rheumatoid Arthritis," in which the distinction between the two diseases was first laid down. He directed his attention mainly to disease in its chemical aspects. In Batten and Thursfield's "Diseases of Children by Various Authors" he contributed the articles on "Disease as It Affects Children" and "Diseases of the Ductless Glands and of Metabolism." In 1900 he delivered the Bradshaw lecture at the Royal College of Physicians on "Urinary Pigments in Their Pathological Aspects." The subject of his Croonian lecture was "Inborn Errors of Metabolism," which was published in book form in 1909. Much of his original work on chemical pathology was delivered in lectures on congenital steatorrhea, alkaptonuria, cystinuria and diaminuria and haematoporphyria congenita. He contributed articles on arthritis to Allbutt's "System of Medicine." He was for twenty years one of the editors of the *Quarterly Journal of Medicine*. His last important work, "The Inborn Factors in Disease," was published in 1931. On the death of Osler he became his successor as regius professor of medicine at Oxford. He had the great misfortune of losing his three sons in the war.

PARIS

(From Our Regular Correspondent)

April 18, 1936.

Newer Aspects of Intestinal Infarcts

A case was reported in 1935 by a well known surgeon of Paris, Prof. Raymond Grégoire, in which a preoperative diagnosis of thrombosis of the mesenteric vessels had been made. The patient's condition did not justify an attempt to resect the coil of small intestine, which appeared to be the seat of the thrombosis. To improve the patient's condition, epinephrine was given subcutaneously in the thigh. Almost immediately the exposed intestine began to resume its normal color and luster. The abdomen was closed and the patient recovered. This led to an active discussion at the time Grégoire reported the case as to whether a condition resembling clinically a mesenteric thrombosis could be due to vascular spasm or to some form of anaphylactic shock. At the Nov. 6, 1935, meeting of the Société Nationale de Chirurgie, Grégoire and Couvelaire reported some experiments on visceral infarcts. Quite recently, Dufau added a clinical case of infarct of the small intestine cured by antishock medication. The latter report was made at the Jan. 22, 1936, meeting of the Académie de Chirurgie.

Grégoire and Couvelaire stated that in their opinion a hemorrhagic pancreatitis, intestinal infarct, thrombosis of the testis and uterotubo-ovarian apoplexy have always been regarded as independent lesions. This is probably true of cases in which an obliteration of the nutrient vessels of the viscus existed. But one encounters cases in which no such vascular obstruction can be found, especially in the intestine, in hemorrhagic pancreatitis and in uterotubo-ovarian apoplexy.

Experimentally these various accidents can be caused by a toxemia of the vegetative nervous system, by an endogenous or exogenous poison in the form of an anaphylactic shock. Clinically all the lesions just cited resemble one another by the sudden onset with generalized symptoms, the leading one of which is marked fall in blood pressure. Anatomically, the thirty-two experiments on dogs and guinea-pigs were characterized by a sudden arrest of circulation accompanied by dilatation of the blood vessels and extravasation of blood. This can be temporary or permanent, the circulatory disturbances varying from simple apoplexy to an anemic necrosis. All of Grégoire and Couvelaire's experiments were accomplished by sensibilizing the animal with a heterogenous serum (horse). Three weeks later an injection was made at the level of the viscus (pancreas, intestine, uterus or testis) one wished to study. All the experiments were made under local anesthesia.

Following the second injection, the same severe generalized symptoms are observed as are encountered clinically. These are followed by congestion and diffuse hemorrhagic extravasation as in hemorrhagic pancreatitis, intestinal infarct, uterotubo-ovarian apoplexy and testicular thrombosis. The deduction can be made that such lesions, at least in animals, are due to a shock of intolerance or anaphylactic shock. Other investigators were cited as obtaining the same results with other exogenous substances.

As to treatment, if the surgeon observes that the circulation in the viscus, especially of the intestine, reappears after antishock medication, the abdomen can be closed and the same treatment continued. If, however, the viscus presents evidence of incipient necrosis, more radical measures are indicated. If there is a doubt as to the condition of a coil of intestine, it can be exteriorized and resected later. Several successful cases of this kind have been reported recently.

The cases reported by Dufau appear to be a clinical confirmation of the previous observation of Grégoire and of his present experimental work.

A man aged 45 presented the clinical picture of an intestinal infarct. At operation, this condition was found over a length of 80 cm. There was only slight mesenteric infiltration and the arterial pulsation appeared good. Epinephrine was given subcutaneously and also warm serum. The exposed coil regained its normal appearance rapidly and was replaced. An uneventful recovery followed.

Injuries of the Ureter During Hysterectomy

At the March 11 meeting of the Académie de Chirurgie of Paris, Roger Petit reported twenty cases of kinks, deviation of the course, and stricture as sequelae of hysterectomy. Many of these patients do not consult the surgeon until some time after the intervention, the interval varying from a few months to several years.

In most cases, the chief complaint is pain, both spontaneous and elicited on palpation of the kidney. The pain is usually referred to the lumbar region and often recurs in paroxysmal form with or without a febrile reaction. As a rule pus and bacteria (most commonly Bacillus coli) are found in the urine.

During the past four years twenty cases have been encountered. In three cases, the preceding operation had been unilateral salpingectomy for extra-uterine pregnancy, thirteen followed subtotal hysterectomy (three for fibroids and ten for adnexal disease), while four followed complete hysterectomy (two for fibroids and two for adnexal disease).

The methods of diagnosis are by the passage of ureteral catheters or bougies supplemented by ascending ureteropyelography. One should not expect to find very marked changes in the ureter or renal pelvis. At the period in which the pain is first complained of, only a slight degree of dilatation of the ureter or renal pelvis (small hydronephroses), or both, is to be found.

On ureteral exploration with the catheter or bougie, an obstruction is encountered at a level of 4 cm. from the vesical orifice of the ureter. Most commonly this resistance is found at a level of from 8 to 10 cm. Following the passage of the catheter beyond the obstructed area, urine varying in amount from 8 to 30 cc. escapes through the catheter. With the aid of retrograde ureteropyelography, preferably with the use of the Chevassu catheter, an accurate picture of the strictured area kink or displacement of the pelvic ureter, and dilated portions above, can be obtained. It is unusual for the ureteral disorder to be found at the level of crossing of the ureter by the uterine artery; i. e., 4 cm. up. Most frequently, the level at which the ureteral changes are found is from 8 to 10 cm. up; i. e., at the level of the ovarian pedicle where the ureter is in very close contact with the peritoneum. The ureter can be injured in one or more of three ways: (*a*) when the ovarian pedicle is ligated too near the pelvic wall, (*b*) when in covering the hysterectomy stump with peritoneum too much subjacent tissue is included in the suture, and (*c*) in pulling on the peritoneum too forcibly in the attempt to cover the stump. The peristaltic movements of the ureter are interfered with, resulting in local atony and resultant changes in the ureteral wall and peri-ureteral envelopes. The treatment consists chiefly in dilatation of the strictured area with bougies of gradually increasing caliber followed by lavage of the renal pelvis.

In the discussion, Chevassu stated that he was not convinced, by the films shown by Petit of the presence of an obstruction at the level of the brim of the pelvis, where the ovarian pedicle would be ligated. Quite frequently a fusiform dilatation could be observed in nonoperated women, which began at the point of union of the pelvic and iliac portions of the ureter and extended almost to the kidney. A slight obstruction in the pelvic portion of the ureter sufficed to cause a marked accentuation of such a fusiform dilatation. Gouverneur emphasized the importance of the interference with peristalsis due to too extensive denudation of the ureter during operations.

Warning Against Vaccination in Infantile Paralysis

At the March 10 meeting of the Académie de Médecine of Paris, Levaditi and his co-workers stated that active immunity in poliomyelitis can be obtained only by the production of an occult infection capable of a vaccination of the nerve centers against the ultravirus. The receptivity of monkeys and especially of human beings to the ultravirus is subject to inexplicable variations, hence the danger of using a living virus whose degree of attenuation cannot be estimated in advance on individuals whose receptivity varies so greatly. Certain persons will be immunized while others are infected.

Experimental study by Levaditi and his co-workers of Kolmer and Rule's vaccine shows that it has a prophylactic action, but this is found in only a very small percentage of animals. The observations published in 1935 by Leake of the United States Public Health Service were cited as showing that the utmost care must be observed in advising vaccination in human beings, because of the imperfect state of the present knowledge of the subject.

BERLIN

(From Our Regular Correspondent)

April 1, 1936.

A System of Personal Health-Albums

For some time the public health headquarters of the directorate of the National Socialist Party has been planning to inaugurate a system of personal health-albums, based on physical examinations according to age groups, which eventually would include the entire population of the reich (THE JOURNAL, April 13, 1935, p. 1351). By examinations at intervals not to exceed two years, these albums will be kept up to date. A beginning will be made shortly with two age classes from the German Workers Front, an organization which, as every one knows, has taken the place of the trade unions. The German social insurance organization will administer and finance this undertaking. The primary concern will be not so much the singling out of sick persons as the determination of persons considered well. The examination will first attempt to ascertain the functional working capacity and next to make the person's health and working capacity conform to the maximum indicated by hereditary aptitudes. The albums will contain not only a record of defects; positive hereditary factors are also to be stressed as well as data on maximum capability and the means by which it may best be achieved. The headquarters stipulates three classifications of bodily form: slender, muscular and rotund. Persons shall be classed as agile, sluggish, matter of fact, sensitive, hypocritical and so on. Each album contains a family tree in which the hereditary background can be studied. There are three differing types of examinations based on age groups: health blank A for nurslings and children under the age of 6 years; B for the group between the ages of 6 and 18; C from ages 19 to 65. Separate examinations are given for males and females within these groups. The books will remain with the local administrative units of the public health headquarters. When a registrant changes his residence, the album is transferred to the station nearest the new domicile. These records will be placed at the disposal of party and service bureaus only in special circumstances (and under seal of medical professional secrecy). These examinations, in which the racial political bureau of the party will cooperate, are not designed to deprive persons of their employment but to place those suffering from minor disabilities in more suitable occupational fields.

The Meinicke Test for Tuberculosis

The flocculation test devised by Meinicke some years ago has come to be regarded seriously. Experimentation, however, has not yet been sufficiently extensive. It is important that

the value of this test be demonstrated with clinical material of the general hospital instead of confining its use to tuberculosis stations. Professor Kalk has undertaken such an investigation. The reaction can be established with serum as well as with pleural exudate and even with cadaveric blood. The most important finding is that a single negative result tells nothing; the test must be repeated at regular intervals. Clinically ascertained cases of pulmonary tuberculosis showed 80 per cent positive, or 98 per cent if doubtful cases are included. Control examinations of thirty-five healthy aviators showed only three doubtful cases with positive reactions, the others showing repeated negative reactions. The reactions of the hospital personnel and those of relatives of tuberculous patients were similar. Only 26 per cent showed unequivocal negative reactions. Here, from the nature of the Meinicke test as a true antigen-antibody reaction, the much disputed theory of immunity to tuberculosis by increased exposure suggests itself.

Among hospital patients generally the positive tests indicate mostly an old tuberculous condition with the exception of patients with diabetes, in whom a remarkable accumulation of positive reactions (30 per cent) and doubtful reactions (55 per cent) was observed. Perhaps this should be considered as a manifestation of increased susceptibility to tuberculosis among diabetic patients.

Negative reaction to repeated examinations demonstrates the absence of tuberculosis as reliably as the positive reaction demonstrates the presence of the disease. The doubtful reaction is especially significant if in the course of the illness it changes to a positive. According to Kalk, this test should today belong to the routine of every large hospital.

Of the patients with severe forms of tuberculosis, 36 per cent showed negative reactions to the initial test; but as their condition improved the reaction became positive. This change is regarded as prognostic. On the contrary, fatal cases, for example, often showed negative reactions because of deficiency of antibodies. The weakening of the positive reaction corresponds most particularly to the appearance of exudates. Enfeeblement of a previously strong reaction may be taken to indicate deterioration, convalescence or appearance of exudates. The test is useful only in connection with the clinical course of the disease. The test can be considered as a true antigen-antibody reaction.

As Dr. Meinicke himself emphasizes, thorough roentgen examination is still the choice procedure. For the clinic, however, the Meinicke reaction appears to have taken its place beside the erythrocyte sedimentation reaction and the curve of bodily weight as a useful diagnostic and prognostic aid.

Death of Prof. Friedrich Kraus

Prof. Friedrich Kraus, prominent Berlin internist, died March 2, aged 78. Born in the German-Bohemian border region in what is now Czechoslovakia, Kraus studied at Prague, receiving his foundation in biochemistry from Hofmeister and in pathologic anatomy from Hering. In 1889 he became assistant to Kahler at Vienna and as early as 1894 he was called to Graz as an internist to head the university's medical clinic. In 1902 he succeeded Gerhardt in Berlin as the head of the second medical clinic of the university (the Charité).

The painstaking efforts of Kraus to explain constitution and individuality by means of systematic analysis and synthesis were an innovation; his monograph "Fatigue as a Measure of the Constitution" worked a revolution in the world of medical thought. He established the cortical person as opposed to the "tiefen person" (inner person). He contributed to a better understanding of internal medicine in all its ramifications. His vast knowledge permitted him to have unusual slants on many subjects. Many of his attitudes are incomprehensible and perhaps are destined to remain so. His lectures were not easy to follow; nevertheless doctors came in throngs when it was announced that he would speak. A spell that seemed to emanate from his personality gripped his hearers. His researches on the electrocardiogram were fundamental; his manual "Special Pathology and Therapy of Internal Disorders," written in collaboration with Brugsch, contributed to the profession's practical knowledge in this field. Kraus served for many years as president of the Berlin Medical Society by the acclaim of the membership, who reelected him again and again, although conscious of his foibles. When at the age of 70 he came to make his farewell address, the great auditorium was unable to hold all those who sought admittance, and on that occasion he discoursed in a wholly unintelligible vein. It may be that his prodigious mind placed him in advance of his time. Kraus knew how to stimulate thought. His manner while lecturing was always unassuming, although he frequently was so overwhelmed by the profundity of his ideas that he would digress from the announced topic of his discourse.

BUCHAREST

(From Our Regular Correspondent)

April 3, 1936.

Graduate Teaching in Rumania

Graduate medical teaching is primarily national in Rumania and it has not been organized as yet by the state. To meet the requirements of country doctors, the ministry of public health in conjunction with the ministry of public instruction resolved to arrange courses in Jassy, Galatz, Craiova, Cluj, Brasov, Oradea and Bucharest. Doctors who cannot afford to take the courses and cannot get the funds will be provided with free board in the Physicians House in Bucharest, and others will get board at a much reduced rate. The central committee also makes daily allowances in certain cases. For those holding official positions the committee is endeavoring to get leave for the duration of the courses, which are to be entirely free except for the registration fee of $1.50. The courses last respectively two weeks and a month. Some of the Bucharest clinics give tuition to graduates during the whole of the academic year. The courses to be held this year will be in maternal and child welfare and in first aid to injured persons. A special feature will be courses in the economical management of public health institutions, for medical superintendents. The subjects dealt with will include hospital construction, equipment and management, medical technic, institutional feeding and laundry work.

Physicians in Public Service

The new law reorganizing public medical service distinguishes five groups of physicians, according to whether they are concerned with public hygiene, healing, laboratory work, administration in cities and parishes, or forensic medicine. Specialists in any branch of medicine must produce evidence of having studied their branch for at least four years after graduation. The law recognizes as specialists those who, before its proclamation, were university professors, lecturers, assistants or senior hospital physicians, or worked as secondary doctors in a special section of a recognized hospital. Private physicians will be recognized as specialists only if they can supply documentary evidence of having worked in their specialty for at least four years.

In the public service the following ranks are established: junior physician, titular physician, physician-in-chief, principal physician, inspector-general physician and consulting physician. As a rule, every one must begin his public career as a junior physician and must spend two years in this capacity. Advancement is not a certainty but takes place according to merit. One must, however, spend at least two years as junior, and

four years as titular physician. The rank of inspector-general is reserved for the most prominent doctors and appointment is subject to the recommendation of a special commission. Their total number cannot exceed twenty-four in the whole country. If an inspector-general has shown a particularly useful and conscientious activity he receives on retirement the title of medic consilier sanitar. The old law recognized four grades, each promotion providing a 15 per cent rise in salary. The new law is more liberal and provides five grades, each with 25 per cent rise, and the total increase of 125 per cent, together with several additional sources of income, ensures a comfortable living. At the age of 60 every physician may be pensioned at the suggestion of the commission. At 62 all must retire without regard to years of service.

Sued for Professional Indiscretion

At a thermal bathing resort near Oradea, an industrial town, a venereal specialist was sitting in a common bath, when he saw that a patient of his, who on the day before consulted him for the treatment of scabies, wanted to enter. The doctor stepped out of the water and advised the patient to go to a private bath. In his present state the patient was a menace to all who were in the water. The patient refused to do so, and the doctor threatened to call the bath servant to remove him. The patient was obdurate and the doctor called the bath servant and told him to eject the obstinate person, who later brought legal action against the doctor for professional indiscretion, arguing that when he wanted to enter into the common bath he was cured of his scabies. The doctor stated that he did not make known at the time the cause for the removal of the man. He was the official doctor of the bath, and it was impossible that he would have had been totally cured of his scabies for which he consulted him only one day before. The doctor was acquitted and the man in question was fined 1,000 lei for attempting to enter a common bath with a contagious disease.

MOSCOW

(From Our Regular Correspondent)

March 12, 1936.

The Death of Professor Pavlov

The medical world mourns the death of the physiologist Ivan Petrovitch Pavlov, February 27, of influenza, with which he was ill only a few days. Professor Pavlov was born at Ryazan, Sept. 27, 1849, the son of a priest. After his early education in a seminary he attended in 1870 the faculty of natural sciences at St. Petersburg and began his study of physiology. In 1874 he published his first work, on innervation of the pancreas, which was awarded a gold medal. After graduating at the university he entered the third course of the Military Medical Academy, simultaneously working as assistant to Professor Zion. In 1877, under Professor Heidenhain, he studied the physiology of the gastro-intestinal tract. After graduating from the academy in 1879 he received the M.D. degree for his work on centripetal heart nerves. He worked five years in Germany with Ludwig and Heidenhain (1884-1886) and published several papers, on the pancreatic juice, salivation in sham feeding and other subjects. He was elected in 1890 professor of the Tomsk (Siberia) University but the appointment was not confirmed by the government. In the same year he was given the chair of pharmacology in the University of Warsaw and in the Military Medical Academy in St. Petersburg; the latter he occupied till 1924. In 1897 Professor Pavlov summarized the result of his works in the monograph "Lectures on the Digestive Glands." He was awarded for these researches the Nobel prize in 1904. In 1906 he was elected a member of the Russian Academy of Science. In 1903 at the meeting of the International Congress of Physiologists in Madrid he read his paper on experimental psychology of animals, which became the basis of a new chapter in physiology. In his two books "Twenty Years' Experience in Experimental Study of the Nervous Reactions of Animals" and "Lectures on the Work of the Cerebral Hemispheres" he gave a complete systematic statement of the theory of conditioned reflexes. The soviet government helped in his work. His laboratories in Coltuschi were erected along Pavlov's own ideas. Till his last days he was head of the Institute of Physiology and Pathology of Higher Nervous Activity, the Department of Physiology of the All-Union Institute of Experimental Medicine and the biologic station at Coltuschi.

In 1935 Pavlov was chosen president of the fifteenth International Congress of Physiologists; in the autumn of 1935 he read a paper at the international meeting of neurologists in London. In one of the central squares of Leningrad there will be erected his monument. The First Leningrad Medical Institute received Pavlov's name. The Academy of Science of the Union of Socialist Soviet Republics will publish all his works in Russian, French, English and German. The brain of the celebrated scientist is conserved in the Moscow Brain Institute, where it will be thoroughly studied. Pavlov's laboratory at Leningrad will be left as a museum. His wife receives a pension of 1,000 rubles a month. The funeral of Pavlov, at government expense, was a true demonstration of the peoples' sorrow. Thousands were present. His family received telegrams and letters from all over the world and from all leaders in our country.

The Endocrinology Institute

The State Institute of Experimental Endocrinology was established at Moscow about ten years ago and is working now under the leadership of Prof. Nicholas A. Shereshevskiy. It studies theoretical and clinical problems. The institute has departments of biomorphology, biochemistry and physiology, a clinic for endocrine disorders and a department which standardizes all glandular preparations manufactured here. Without its sanction no endocrine preparation can be used in the Soviet Union. The chief subjects now being studied are at present obesity, cachexia, premature sexual development and exophthalmic goiter. In the clinic are studied the newest methods of treatment of glandular diseases. The institute publishes the monthly journal *Problems of Endocrinology*. This institute is the center for the study of endocrinology in this country. A special new building will be erected for the institute within the next few years.

Prizes for Best Works on Rheumatism

The international committee awarding prizes for the best works on rheumatism had its meeting at Moscow, Dec. 16, 1935. Professor Intvar of Lund, Sweden, Professor van Breemen of the Netherlands, Prof. Maximilian P. Conchalovsky and Prof. G. M. Danichevsky of Moscow were present. Forty-two scientific works, were reviewed. The prize of $10,000 was divided in equal parts among Professor Calnietere of Stockholm, P. Wayle of Paris, Schlesinger of London and Freinhed of Vienna.

The Death of Prof. S. P. Fedorov

Prof. Serge Petrovitch Fedorov, one of the leading surgeons, has died in Leningrad from cancer of the rectum. When 26 years of age he received the doctor of medicine degree; at 34 he was chosen professor of surgery in the Leningrad Military Medical Academy, which position he held for nearly forty years. His principal studies were on surgery of the bile tract and gastro-enterology. Professor Fedorov was a brilliant operator and the author of about 120 scientific works. He was the president of the Leningrad surgical society.

Marriages

WILLIAM LENEAVE BERKLEY, lieutenant (j. g.) M. C., U. S. Navy, to Miss Charlotte Hamilton Priest, in Washington, D. C., April 11.

LYNN JAMES LULL to Miss Gladys M. Sullivan, both of Olathe, Colo., at Grand Junction, Colo., April 1.

WILLIAM C. HUTCHISON to Miss Elizabeth Agnes Wargo, both of McKeesport, Pa., May 9.

ANTHONY E. REYMONT to Miss Elizabeth Elich, both of Chicago, April 25.

ABRAHAM COHEN to Miss Lillian Davidow, both of Reading, Pa., May 10.

Deaths

Roger Griswold Perkins ⊕ Wakefield, R. I.; Johns Hopkins University School of Medicine, Baltimore, 1898; member of the Ohio State Medical Association; professor emeritus, hygiene and preventive medicine, Western Reserve University School of Medicine, Cleveland, lecturer on bacteriology, 1901-1904, assistant professor of pathology and bacteriology, 1904-1908, associate professor of pathology and hygiene, 1908-1911, and professor of hygiene and preventive medicine, 1911-1930; city bacteriologist in Cleveland, 1906-1907, 1913-1914; chief of the bureau of laboratories of the city division of health, 1914-1923; consultant to the commissioner of health and director of the laboratories, 1923-1930; chairman of the Cleveland Health Council, 1925-1929; trustee of the Brush Foundation, Cleveland; member of the American Red Cross Commission to Rumania, 1917-1918; medical associate to the scientific attaché of the American Embassy in Paris in 1918; director of the sanitation division of the American Red Cross Commission to the Balkan States in 1919; aged 61; died, March 28, in the Rhode Island Hospital, Providence, of pulmonary embolus, following transurethral resection of the prostate.

Rufus Bartlett Hall, Cincinnati; Miami Medical College, Cincinnati, 1872; professor emeritus of gynecology, University of Cincinnati College of Medicine; member of the Southern Surgical Association; past president of the American Association of Obstetricians, Gynecologists and Abdominal Surgeons, Ohio State Medical Association and the Cincinnati Academy of Medicine; member of the House of Delegates of the American Medical Association from 1908 to 1909 and in 1919; fellow of the American College of Surgeons; formerly on the staff of the Cincinnati General Hospital; one of the organizers of the Presbyterian Hospital; aged 86; died, April 3.

Camille Alphonse H. Fortier ⊕ Milwaukee; Milwaukee Medical College, 1911; formerly lecturer on radiology, Marquette Dental College and Marquette University School of Medicine; served during the World War; at various times on the staffs of the Johnston Emergency Hospital, Milwaukee County Hospital, Evangelical Deaconess Hospital, Maternity and General Hospital, St. Luke's Hospital and St. Joseph's Hospital, Milwaukee, St. Mary's Hospital and St. Luke's Hospital, Racine, and roentgenologist to the Memorial Hospital, Burlington, Wis.; aged 59; died, March 7, of cerebral hemorrhage.

Evan Thomas Steadman ⊕ Montclair, N. J.; University of the City of New York Medical Department, 1885; past president of the Hudson County Medical Society; fellow of the American College of Surgeons; on the staffs of St. Mary's Hospital, Hoboken, Christ Hospital and Margaret Hague Hospital, Jersey City, and the North Hudson Hospital, Weehawken; consultant physician to the Mountainside Hospital; aged 74; died, March 28, of arteriosclerosis.

John King Adams ⊕ East Orange, N. J.; Columbia University College of Physicians and Surgeons, New York, 1902; fellow of the American College of Surgeons; served during the World War; attending surgeon to the Hospital and Home for Crippled Children, Newark; attending orthopedist to St. Mary's Hospital, Orange, and the Dover (N. J.) General Hospital; aged 58; died, March 27, in the Mountainside Hospital, Montclair, of aortic insufficiency.

Charles Edward Vail, Miraj, India; Columbia University College of Physicians and Surgeons, New York, 1906; fellow of the American College of Surgeons; for twenty-six years a medical missionary; professor of surgery and obstetrics, Miraj Medical School; physician in charge of the American Presbyterian Mission Hospital; aged 56; died, March 21, of abdominal carcinoma.

John Abner Snell, Soochow, China; Vanderbilt University School of Medicine, Nashville, Tenn., 1908; fellow of the American College of Surgeons; for many years a medical missionary; superintendent of the Soochow Hospital; member of the Council on Hospitals of the China Medical Association; aged 55; died, March 2, of pneumonia, following influenza.

Charles Williams Crane ⊕ Augusta, Ga.; University of Georgia Medical Department, Augusta, 1898; professor of clinical surgery at his alma mater; fellow of the American College of Surgeons; formerly medical director and chief surgeon of the Margaret Wright Hospital; attending surgeon to the Wilhenford and University hospitals; aged 61; died, April 1.

Emery Austin Miller, Brooklyn; Eclectic Medical College of the City of New York, 1891; College of Physicians and Surgeons, Baltimore, 1894; College of Physicians and Surgeons, Medical Department of Columbia College, New York, 1895; aged 68; died, February 8, in the Kings County Hospital, of arteriosclerotic heart disease and diabetes mellitus.

Charles Arthur Baragar, Edmonton, Alta., Canada; Manitoba Medical College, Winnipeg, 1914; member of the American Psychiatric Association; clinical professor of psychiatry, University of Alberta Faculty of Medicine; commissioner of mental institutions and director of mental health, department of public health; aged 50; died, March 8, of pneumonia.

Willis Hanford Crowe ⊕ New Haven, Conn.; College of Physicians and Surgeons, Medical Department of Columbia College, New York, 1895; fellow of the American College of Surgeons; attending surgeon to the Hospital of St. Raphael and consulting surgeon to the Grace Hospital; aged 62; died, March 24, of coronary occlusion and chronic nephritis.

Herbert Daniel Kistler ⊕ Butte, Mont.; St. Louis University School of Medicine, 1905; past secretary of the Montana State Medical Association; fellow of the American College of Surgeons; president of the Murray Hospital and Murray Hospital Clinic; aged 59; died, March 29, in Lovelock, Nev., of injuries received in an automobile accident.

Frank Doig Francis ⊕ Major, U. S. Army, retired, Tampa, Fla.; Northwestern University Medical School, Chicago, 1903; served during the World War; entered the medical corps of the regular army as a major in 1920 and retired in 1932 for disability in line of duty; aged 57; died, April 5, of cerebral hemorrhage, arteriosclerosis and nephritis.

George Edward Webb Hardy Jr. ⊕ Tampa, Fla.; Johns Hopkins University School of Medicine, Baltimore, 1917; served during the World War; fellow of the American College of Surgeons; member of the surgical staffs of the Tampa Municipal Hospital and St. Joseph's Hospital; aged 43; died, March 26, of cerebral and coronary thrombosis.

Joseph L. McDermott ⊕ Kansas City, Mo.; University of Kansas School of Medicine, Kansas City, 1907; clinical professor of radiology at his alma mater; member of the Radiological Society of North America; aged 60; past president and on the staff of St. Joseph Hospital, where he died, March 6, of a hemolytic streptococcus infection.

William Harry Bergtold, Denver; University of Buffalo School of Medicine, 1887; member of the American Clinical and Climatological Association; professor of pathology at the University of Denver, 1897-1900; served during the World War; since 1900 member of the staff of St. Joseph's Hospital; aged 70; died, March 19.

George Edward Clark, Providence, R. I.; University of Maryland School of Medicine, Baltimore, 1889; member of the American Psychiatric Association and the New England Society of Psychiatry; aged 72; on the staff of the Butler Hospital, where he died, March 14, of cerebral thrombosis and pulmonary tuberculosis.

Paul Christopher Geissler, Tulsa, Okla.; University of Nebraska College of Medicine, Omaha, 1916; member of the Associated Anesthetists of the United States and Canada; served during the World War; aged 46; on the staffs of St. John's Hospital and the Morningside Hospital, where he died, March 16.

Frank Sherwood Meade ⊕ Madison, Wis.; College of Physicians and Surgeons of Chicago, School of Medicine of the University of Illinois, 1908; member of the Radiological Society of North America; aged 53; died, March 1, in the Madison General Hospital, of arteriosclerosis and chronic nephritis.

Frederick Danforth McAllister ⊕ Lawrence, Mass.; Harvard University Medical School, Boston, 1898; fellow of the American College of Surgeons; aged 63; visiting surgeon to the Lawrence General Hospital, where he died, March 17, following an operation for acute gangrenous cholecystitis.

Henry Edwin Morrison, San Jose, Calif.; Cooper Medical College, San Francisco, 1897; member of the Associated Anesthetists of the United States and Canada; served during the World War; at one time superintendent of the Sacramento (Calif.) Hospital; aged 66; died, March 24.

Harry **Otis Johnson,** Machias, Maine; University of Maryland School of Medicine, Baltimore, 1903; member of the Maine Medical Association; county medical examiner; at various times a member of the school board; aged 61; died suddenly, February 18, of coronary occlusion.

Edward **R. Kellogg,** Los Angeles; New York Homeopathic Medical College and Hospital, 1891; fellow of the American College of Surgeons; on the staff of the Hollywood Clara Barton Memorial Hospital; aged 67; died suddenly, April 9, of cerebral hemorrhage.

Alano **Eleno Pierce** ⊕ Minot, N. D.; University of Minnesota Medical School, Minneapolis, 1925; fellow of the American College of Physicians; associated with the Northwest Clinic; on the staff of the Trinity Hospital; aged 35; died, March 14, of pneumonia.

Tilghman **Brice Marden,** Preston, Md.; University of Maryland School of Medicine, Baltimore, 1892; formerly professor of histology and embryology at his alma mater; aged 66; died, March 17, in the Emergency Hospital, Easton, of diabetes mellitus.

Graham **Chambers,** Toronto, Ont., Canada; University of Toronto Faculty of Medicine, 1889; Trinity Medical College, Toronto, 1892; formerly associate professor of clinical medicine at the University of Toronto Faculty of Medicine; died, March 27.

Russell **Eugene Miller,** Akron, Ind.; Indiana University School of Medicine, Indianapolis, 1930; member of the Indiana State Medical Association; aged 28; died, February 3, in the Woodlawn Hospital, Rochester, of cellulitis of the face and neck.

Peter **Murray** ⊕ New York; College of Physicians and Surgeons, Medical Department of Columbia College, New York, 1884; fellow of the American College of Physicians; consulting physician to St. Vincent's Hospital; aged 74; died, March 6.

Alpha **Raymond Morse** ⊕ Oxford, N. Y.; Baltimore Medical College, 1904; past president of the Chenango County Medical Society; county coroner; formerly mayor; aged 64; died, February 16, of chronic nephritis and coronary disease.

Roy **Edgar Barrows** ⊕ Cairo, Ill.; Northwestern University Medical School, Chicago, 1909; acting assistant surgeon of the U. S. Public Health Service; on the staff of St. Mary's Hospital; aged 51; died suddenly, March 20, of angina pectoris.

John **William McLean,** North Sydney, N. S., Canada; McGill University Faculty of Medicine, Montreal, Que., 1883; fellow of the American College of Surgeons; surgeon to the Hamilton Memorial Hospital; aged 79; died, March 28.

Edwin **Eugene Whiteside,** Portland, Ore.; Barnes Medical College, St. Louis, 1907; served during the World War; aged 64; died, March 2, in the Veterans Administration Facility, American Lake, Wash., of bronchopneumonia.

John **Richard Morgan,** Twin Falls, Idaho; Northwestern University Medical School, Chicago, 1907; member of the Idaho State Medical Association; served during the World War; aged 62; died, February 20, of coronary occlusion.

John **Alexander McLeay,** New York; L. A. H., Dublin, Ireland, 1887; University of Toronto Faculty of Medicine, Toronto, Ont., Canada, 1892; aged 73; died, February 12, at the Columbia-Presbyterian Medical Center.

John **Vincent Kerrigan** ⊕ Michigan City, Ind.; Northwestern University Medical School, Chicago, 1908; served during the World War; on the staff of St. Vincent's Hospital; aged 50; died, February 10, of pneumonia.

John **Hammond Anderson,** Cranston, R. I.; Tufts College Medical School, Boston, 1904; member of the New England Society of Psychiatry; aged 54; died, February 22, at his home in Auburn, of coronary thrombosis.

Jerome Bonaparte Rogers, Pottsville, Pa.; Jefferson Medical College of Philadelphia, 1904; at one time county medical director; formerly medical superintendent of the Pottsville Hospital; aged 59; died, March 2.

William H. Dings, Mitchell, Ind.; Louisville (Ky.) Medical College, 1894; member of the Indiana State Medical Association; aged 62; died, February 17, in the Dunn Memorial Hospital, Bedford, of pneumonia.

David Paul Caldwell, Sidell, Ill.; Hahnemann Medical College and Hospital, Chicago, 1916; member of the Illinois State Medical Society; for many years member of the school board; aged 42; died, February 2.

Elijah George Harris, Chicago; Bennett Medical College, Chicago, 1915; member of the Illinois State Medical Society; aged 68; died, February 15, of peritonitis and impacted stone in the common bile duct.

Guy Godley Kilgour ⊕ Chicago; Jenner Medical College, Chicago, 1903; aged 63; on the staff of the Chicago State Hospital, where he died, March 31, of peritonitis following perforated duodenal ulcer.

Eugene McKay Bailey ⊕ Acworth, Ga.; Atlanta Medical College, 1890; past president of the Cobb County Medical Society; aged 67; died, March 2, in a hospital at Atlanta, of coronary thrombosis.

William Joseph Durkin, Brooklyn; University of Maryland School of Medicine, Baltimore, 1911; aged 53; died, March 3, in the Kings County Hospital, of cerebral hemorrhage and hypertension.

Julian Terrell Coggeshall, Darlington, S. C.; University of Louisville (Ky.) Medical Department, 1907; member of the South Carolina Medical Association; aged 60; died, March 1, of pneumonia.

Carl Frederick B. Fuchs, Brooklyn; University of the City of New York Medical Department, 1890; aged 74; died, March 11, in the Kings County Hospital, of arteriosclerosis and thrombosis.

Robert H. Craig ⊕ Charleston, Ill.; Louisville (Ky.) Medical College, 1900; formerly secretary of the Coles-Cumberland County Medical Society; aged 62; died, February 20, of septicemia.

James Albert Anderson, Gastonia, N. C.; University of Georgia Medical Department, Augusta, 1899; served during the World War; aged 59; died, March 13, of nephritis and myocarditis.

Louis Putnam Earnshaw, Cincinnati; Miami Medical College, Cincinnati, 1895; aged 64; died, March 23, in the Hamilton County Home and Chronic Disease Hospital, of chronic myocarditis.

James M. King, Metcalf, Ga.; Chattanooga (Tenn.) Medical College, 1894; aged 77; died, February 7, in the Archbold Memorial Hospital, Thomasville, of pyelonephrosis and uremia.

A. C. Heidman, Columbia, Mo.; St. Louis College of Physicians and Surgeons, 1883; aged 74; died, March 3, in the Parker Memorial Hospital, of influenza and pulmonary edema.

Dagobert A. Scheibenzuber, Hyde Park, Ohio; Cincinnati College of Medicine and Surgery, 1891; aged 67; was found dead in his automobile, February 25, of cerebral hemorrhage.

Walter Lee Beauchamp, Williamson, Ga.; Atlanta College of Physicians and Surgeons, 1908; aged 52; died, February 29, in the Strickland Memorial Hospital, Griffin, of erysipelas.

Francis M. Ward, Washington, D. C.; Georgetown University School of Medicine, Washington, 1881; aged 78; died, January 24, in the Garfield Hospital, of cerebral hemorrhage.

Fred H. Davis, Lyndonville, Vt.; Hahnemann Medical College and Hospital, Chicago, 1890; member of the Vermont State Medical Society; aged 78; died, February 22, of erysipelas.

John Joseph Garry, Worcester, Mass. (licensed in Massachusetts in 1914); for many years on the staff of St. Vincent Hospital; aged 55; died, March 25, of coronary occlusion.

William Henry Ellis, Gladstone, Mich.; Rush Medical College, Chicago, 1880; aged 80; died, February 24, in St. Francis Hospital, Escanaba, of fracture of the right hip.

Frederick August Karst ⊕ Chicago; Hahnemann Medical College and Hospital, Chicago, 1887; aged 82; died, February 27, of chronic myocarditis, at his home in Wilmette, Ill.

William Louis Abbott, Elk Neck, Md.; University of Pennsylvania Department of Medicine, Philadelphia, 1884; aged 76; died, April 2, of myocarditis and lobar pneumonia.

William H. Hughes, Greensboro, N. C.; Meharry Medical College, Nashville, Tenn., 1888; aged 73; died, February 17, of basal fracture of skull due to a fall down the stairs.

Harry Andrews Collings ⊕ Susanville, Calif.; College of Physicians and Surgeons of San Francisco, 1911; aged 55; died, March 8, at St. Helena, of chronic cholecystitis.

Edgar James Torey, Delmar, N. Y.; University of the City of New York Medical Department, 1890; aged 77; died, February 3, of carcinoma of the tongue and anemia.

Anna Laura Taylor, Elkins, W. Va.; Laura Memorial Woman's Medical College, Cincinnati, 1898; aged 70; died, March 9, in a hospital at Weston, of gangrene.

Clarence Follett Smith, Ransomville, N. Y.; University of the City of New York Medical Department, 1880; aged 79; died, February 4, of cerebral hemorrhage and senility.

Thomas Macer, Evansville, Ind.; Eclectic Medical Institute, Cincinnati, 1884; aged 75; died, February 1, of cardiac decompensation, arteriosclerosis, hypertension and nephritis.

Ortive E. Latham, Ann Arbor, Mich.; Hahnemann Medical College and Hospital, Chicago, 1882; aged 83; died, February 22, of heart disease and carcinoma of the prostate.

Alton Sanford, Weston, W. Va.; Tulane University of Louisiana School of Medicine, New Orleans, 1929; aged 31; died, February 18, in Ryland, Ala., of pneumonia.

James R. Labadie, Fraser, Mich.; Michigan College of Medicine and Surgery, Detroit, 1897; aged 61; died, March 20, in the Ford Hospital, Detroit, of diabetes mellitus.

William A. Powers, Pacific, Mo.; Beaumont Hospital Medical College, St. Louis, 1898; aged 59; died, March 11, in St. John's Hospital, St. Louis, of Hodgkin's disease.

John Ralph Mabee, Chicago; University of Louisville (Ky.) Medical Department, 1895; aged 63; died, February 12, in the Alexian Brothers' Hospital, of diabetes mellitus.

James Thomas A. Wright, Salisbury, N. C.; College of Physicians and Surgeons, Baltimore, 1892; aged 63; died, March 10, in Punxsutawney, Pa., of pneumonia.

Justin Starr Barker, Kennebunk, Maine; Howard University College of Medicine, Washington, D. C., 1889; aged 69; died, February 17, of coronary thrombosis.

Eugenie Ferguson Boies, Buda, Ill.; Jenner Medical College, Chicago, 1909; aged 63; died, February 12, in the Perry Memorial Hospital, Princeton, of pneumonia.

Colbert Smith Davis, Rock Island, Ill.; Northwestern University Medical School, Chicago, 1909; aged 54; died, February 9, in St. Anthony's Hospital, of pneumonia.

Clark E. Ernest, Gasport, N. Y.; University of Buffalo School of Medicine, 1888; aged 77; died, March 12, in the City Hospital, Lockport, of cerebral hemorrhage.

Albert Corryden McGee, McNabb, Ill.; Eclectic Medical Institute, Cincinnati, 1881; aged 80; died, February 20, in St. Mary's Hospital, La Salle, of myocarditis.

David Lewis Holland, Chicago; Loyola University School of Medicine, Chicago, 1917; aged 55; died, February 18, of coronary thrombosis and chronic nephritis.

Thomas H. D. Stuart, Dallas, Texas; Philadelphia University of Medicine and Surgery, 1867; Confederate veteran; aged 96; died, February 22, of nephritis.

Norman Bond Kerr, Plainfield, N. J.; University of Pennsylvania Department of Medicine, Philadelphia, 1882; aged 76; died, March 27, of cerebral hemorrhage.

George E. Wire, Worcester, Mass.; Chicago Medical College, 1883; aged 77; was found dead in bed, February 23, of arteriosclerosis and coronary sclerosis.

James E. Clark, Detroit; Detroit College of Medicine, 1912; member of the Michigan State Medical Society; aged 56; died, March 12, in the Providence Hospital.

Mary Freeman ⊕ Perrine, Fla.; Medical College of the State of South Carolina, Charleston, 1912; aged 67; was killed, February 2, in an automobile accident.

Frederick Wanton Van Valkenburg, Long Prairie, Minn.; University of Minnesota Medical School, Minneapolis, 1925; aged 37; died, February 4, in Anoka.

George Frank Day, Washington, D. C.; Pulte Medical College, Cincinnati, 1883; aged 78; died, February 17, in the Homeopathic Hospital, of pneumonia.

Franklin John Kaufmann ⊕ Syracuse, N. Y.; Harvard University Medical School, Boston, 1887; aged 72; died, February 6, of carcinoma of the rectum.

Charles M. Heberton, Denver; Medico-Chirurgical College of Philadelphia, 1897; aged 65; died, February 8, in St. Anthony's Hospital, of pneumonia.

Harry Edgar Hall, Chattanooga, Tenn.; Southern College of Medicine and Surgery, Atlanta, 1913; aged 44; died, February 21, of cerebral hemorrhage.

Edwin Sturtevant Steese ⊕ New York; Harvard University Medical School, Boston, 1893; aged 66; died, February 7, in the Roosevelt Hospital.

Carrol Clinton Carpenter, Minneapolis; University of Minnesota Medical School, Minneapolis, 1897; aged 63; died, February 9, of heart disease.

Frank M. Archibald ⊕ Mahnomen, Minn.; College of Physicians and Surgeons of Chicago, 1893; aged 70; died, March 1, of cerebral hemorrhage.

William Bonnar, Chicago; Faculty of Medicine of Trinity College, Toronto, Ont., Canada, 1882; aged 79; died, February 29, of chronic myocarditis.

Michael Joseph Ford, Omaha; John A. Creighton Medical College, Omaha, 1901; aged 64; died, February 18, of coronary thrombosis and myocarditis.

Condy C. Gallagher, Manayunk, Pa.; Atlanta College of Physicians and Surgeons, 1900; also a dentist; aged 73; died, March 13, of myocarditis.

John B. Curtis, Orange Heights, Fla.; Medical School of Maine, Portland, 1879; aged 81; died, March 4, of bronchopneumonia and peritonitis.

James Frank Leslie, Marshfield, Ore.; Northwestern University Medical School, Chicago, 1903; aged 56; died, February 4, of pneumonia.

Malcolm Wayland Everson, Pittsburgh; Jefferson Medical College of Philadelphia, 1889; aged 68; died suddenly, February 6, in New York.

Samuel P. Miller, Columbia, Ky.; University of Louisville Medical Department, 1888; formerly county health officer; aged 71; died, February 26.

Mary Emma Bliss Robinson, Duxbury, Mass.; Boston University School of Medicine, 1897; aged 79; died, February 26, of lobar pneumonia.

Charles Kelley, Franklinville, N. Y.; University of Buffalo School of Medicine, 1899; aged 66; died, February 29, of scurvy and secondary anemia.

Harry Cleveland Harris, Brooklyn; Jefferson Medical College of Philadelphia, 1908; aged 50; died, February 19, of cerebral hemorrhage.

William Lloyd Hughes, East Chicago, Ind.; Barnes Medical College, St. Louis, 1899; aged 63; died, February 18, of coronary thrombosis.

Harry S. P. Lare, St. Louis; Missouri Medical College, St. Louis, 1881; aged 74; was found dead in bed, March 8, of cerebral hemorrhage.

Edwin B. Olmstead, Cleveland Heights, Ohio; Georgetown University School of Medicine, Washington, D. C., 1887; aged 74; died in March.

Howard Stanley Allen ⊕ Delta, Pa.; University of Maryland School of Medicine, Baltimore, 1931; aged 28; died, March 7, of scarlet fever.

John M. Fisher, Hagerstown, Ind. (licensed in Indiana in 1897); aged 90; died, February 22, of chronic nephritis and arteriosclerosis.

Isaac L. McGinness, Pikeville, Tenn.; Chattanooga Medical College, 1899; aged 64; died, February 27, of a self-inflicted bullet wound.

George Whipple Hubbard, Houston, Texas (registered by Texas State Board of Medical Examiners); aged 62; died, February 8.

Thomas Moore Hoskins, Oklahoma City, Okla.; University of Nashville (Tenn.) Medical Department, 1892; died, February 8.

Perry M. Brown, Wheeling, W. Va.; Meharry Medical College, Nashville, Tenn., 1922; aged 37; died, February 25, of pneumonia.

George Wynn Shirk, New York; Rush Medical College, Chicago, 1897; aged 63; died, February 16, of cerebral hemorrhage.

Carl Boright Dunn, Madison, Ind.; University of Vermont College of Medicine, Burlington, 1900; aged 64; died in February.

George Aubry Henry, Horatio, Ark. (licensed in Arkansas in 1903); aged 69; died, February 19, in a hospital at Texarkana.

Greene B. Jackson, Fairland, Okla. (licensed in Arkansas in 1903); aged 72; died, March 25, of carcinoma of the stomach.

Samuel Donaldson, Petros, Tenn.; Chattanooga Medical College, 1901; aged 59; died, March 2, of cerebral hemorrhage.

Daniel George Lawton, Detroit; Saginaw Valley Medical College, 1901; aged 57; died, February 9, of multiple sclerosis.

Samuel John Randall, Denver; Pulte Medical College, Cincinnati, 1880; aged 83; died, February 19.

R. C. Arbaugh, Booneville, Ark. (licensed in Arkansas in 1903); aged 64; died, February 29.

Bureau of Investigation

MISBRANDED "PATENT MEDICINES"

Abstracts of Notices of Judgment Issued by the Food and Drug Administration of the United States Department of Agriculture

[EDITORIAL NOTE: The abstracts that follow are given in the briefest possible form: (1) the name of the product; (2) the name of the manufacturer, shipper or consigner; (3) the composition; (4) the type of nostrum; (5) the reason for the charge of misbranding and (6) the date of issuance of the Notice of Judgment—which may be considerably later than the date of the seizure of the product.]

666 Salve.—Monticello Drug Co., New York, New Orleans, Jacksonville, Fla., and Mexico City. Composition: Essentially volatile oils including camphor, menthol, eucalyptus and a coniferous oil such as cedar-leaf oil, in petrolatum. For catarrh, chills, streptococcic infections, etc. Fraudulent therapeutic claims.—[*N. J. 23264; May, 1935.*]

Herb Tea No. 10.—Arko Herbs, Inc. Composition: Essentially ground senna pods, with small amounts of sassafras bark and fennel seed, and minute amounts of senna leaf and bearberry. Cure-all. Fraudulent therapeutic claims.—[*N. J. 23272; May, 1935.*]

Arko Healing Salve.—Arko Herbs, Inc. Composition: Essentially boric acid (4 per cent), zinc oxide (4.6 per cent), and a compound of aluminum, carbolic acid and water, in petrolatum. Fraudulent therapeutic claims.—[*N. J. 23272; May, 1935.*]

Holbrook's Ka-Kolo.—Holbrook Kola Co., Boston. Composition: Essentially acetanilid (4.68 grains), caffeine (1.0 grain), baking soda (1.9 grains) and crude drugs including celery seed, cinnamon and red pepper. For headache, grippe, female complaints, asthma, malaria, etc. Fraudulent therapeutic claims.—[*N. J. 23274; May, 1935.*]

Prestolas.—Union Capsule Co., Bloomfield, N. J. Composition: Capsules consisting essentially of volatile oils including pennyroyal and savin (42 per cent), and a fixed oil. For female disorders. Fraudulent therapeutic claims.—[*N. J. 23276; May, 1935.*]

Epsotabs.—Dill Co., Norristown, Pa. Composition: In each tablet 1½ grains phenolphthalein and about 4¼ grains of epsom salt; one specimen also contained aloin. Misbranded because the name "Epsotabs, The Laxative" on the label falsely represented that the stuff was entirely epsom salt, whereas, its chief laxative action was due to phenolphthalein and, in one specimen, to phenolphthalein and aloin.—[*N. J. 23277; May, 1935.*]

Re-Ju-Va.—Re-Ju-Va Co., Columbus, Ohio, and Minneapolis. Composition: A red watery solution with a peppermint odor, consisting essentially of epsom salt, iron chloride, and a small amount of citric acid, with glycerin and mineral hypophosphites. Cure-all. Fraudulent therapeutic claims.—[*N. J. 23279; May, 1935.*]

Rawleigh's Tonic Compound.—W. T. Rawleigh Co., Freeport, Ill. Composition: Essentially small amounts of sodium, potassium, calcium, iron, manganese, quinine and strychnine salts, hypophosphites, citrates, alcohol, sugar and water. For underweight, general debility, nervous disorders, etc. Fraudulent therapeutic claims.—[*N. J. 23280; May, 1935.*]

Rawleigh's Thyme Cough Compound.—W. T. Rawleigh Co., Freeport, Ill. Composition: Essentially extract of thyme, with alcohol, sugar and water. For coughs, bronchitis, asthma, whooping cough, etc. Fraudulent therapeutic claims.—[*N. J. 23280; May, 1935.*]

Rawleigh's Liniment.—W. T. Rawleigh Co., Freeport, Ill. Composition: Essentially red pepper extract, camphor, pine oil, an ammonium compound, alcohol and water. Fraudulent therapeutic claims.—[*N. J. 23280; May, 1935.*]

Rawleigh's Pain Relief.—W. T. Rawleigh Co., Freeport, Ill. Composition: Essentially red pepper extract, camphor, soda, an ammonium compound, alcohol and water. Fraudulent therapeutic claims.—[*N. J. 23280; May, 1935.*]

Marisco Menthol Inhaler.—John M. Maris Co., Inc., New York. Composition: Menthol in an inhaler. For catarrh, hay fever, asthma, etc. Fraudulent therapeutic claims.—[*N. J. 23283; May, 1935.*]

Bulgarian Marvel Herb Tea Compound.—Marvel Products Co., Pittsburgh. Composition: Essentially epsom salt (10.3 per cent), senna leaves, bearberry leaves, sassafras bark, licorice bark, dog grass, elder flowers, lavender flowers, fennel seed and anise seed. For stomach, liver, kidney and blood disorders. Misbranded because not of Bulgarian origin and because not composed entirely of herbs. Fraudulent therapeutic claims.—[*N. J. 23284; May, 1935.*]

Grove's Emulsified Nose Drops.—Paris Medicine Co., St. Louis. Composition: Essentially ephedrine hydrochloride, menthol, a chlorine compound, mineral oil and water. Not germicidal, as represented. Fraudulent therapeutic claims.—[*N. J. 23285; May, 1935.*]

Amenoco Capsules.—Purity Drug Co., Inc., New York. Composition: Essentially quinine sulfate (0.86 grains per capsule), aloe, powdered plant material, and essential oils including pennyroyal oil. For menstrual disorders. Misbranded because contents were misrepresented and because of fraudulent therapeutic claims.—[*N. J. 23293; May, 1935.*]

Manikin Tea.—Manikin Products, Inc., New York. Composition: Essentially senna leaves, calendula flowers, coriander fruits, anise seed, marine algae (fucus), sassafras bark, corn flowers and althea roots. For obesity. Fraudulent therapeutic claims.—[*N. J. 23289; May, 1935.*]

Live-On Tonic.—Live-On Medicine Co., St. Louis. Composition: Essentially plant drug extracts including rhubarb, with alcohol, sugar and water. Fraudulent therapeutic claims.—[*N. J. 21227; August, 1934.*]

Correspondence

LEUKEMIA OR POLYCYTHEMIA

To the Editor:—The article "Leukemia with Thrombocytosis" by Dr. Carl B. Drake in THE JOURNAL, March 21, interested me very much. It is unfortunate that the case is labeled "leukemia" and not "polycythemia," since the report brings up a number of points of interest in connection with the latter disease. First of these is the hemorrhagic tendency in polycythemia, which is often quite striking and has been commented on by many observers. In my own series of twenty cases it has been a common symptom. The bleeding may be spontaneous, as from the nose, the stomach or the bowel, or it may be present as a persistent oozing following such operative procedures as extraction of teeth or abdominal operations. The tendency to bleed appears to have nothing whatever to do with the platelets, the bleeding time or the clotting time but is probably the result of injury to the widely overdistended capillaries which are a feature of the disease.

A platelet count of 2.5 million per cubic millimeter was not at all unusual in my own series of cases. The count is usually in the neighborhood of 1 million; in four cases the platelet count has remained consistently between 2 and 3.3 million with a corresponding increase in the platelet volume, which may be as great as 3 per cent of the total volume of blood. Bits of megakaryocytes are not infrequently found. As in Dr. Drake's case, extreme elevation in platelets may be present even though the erythrocyte count is not excessive. In two of my cases the platelets ranged between 2.5 and 3.3 million per cubic millimeter, with red cell counts between 5.5 and 7 million. This is not difficult to understand when one observes the bone marrow, which shows great hyperplasia not alone of the red cell forming elements but of the leukocytes and megakaryocytes as well. Indeed, the latter structures are sometimes so numerous that they may overshadow the rest of the cellular tissue. This hyperplasia of all the marrow elements is reflected in the blood picture, which shows an increase in red cells, white cells and platelets. Polycythemia should thus be considered a disease not alone of the red cells but of all the cells formed in the marrow. The three elements need not necessarily be elevated in the same relative fashion, in some cases the platelets, in others the leukocytes being in the ascendency. The white cells are frequently immature, myelocytes, even myeloblasts, at times being seen. Indeed, the leukocytic picture is sometimes so abnormal as to suggest myeloid leukemia.

In a woman presenting, as in the case report referred to, a plethoric appearance, cyanosis of the lips, prominent retinal veins, splenohepatomegaly, hypertension, a hemorrhagic tendency, oozing of blood following operation, rapid return in erythrocyte count following hemorrhage and elevation in the red cell count to 5.8 million, elevation in the leukocyte count, elevation in polymorphonuclears, and extreme elevation in platelet count, it seems unwise to make the diagnosis of leukemia, especially since all these features are quite typical of polycythemia.

WILLIAM DAMESHEK, M.D., Boston.

Queries and Minor Notes

ANONYMOUS COMMUNICATIONS and queries on postal cards will not be noticed. Every letter must contain the writer's name and address, but these will be omitted on request.

PULMONARY HEMORRHAGE

To the Editor:—Mrs. E. W., aged 50, white, is subject to periodic pulmonary hemorrhages. She reports having had the first when she was 30 years old and then none for thirteen years. Following the second she has had them every year or two. The majority have come in the spring, although she had one at Christmas time and the last one came in January of this year. The attacks come on suddenly, with little warning, and irrespective of what she happens to be doing at the time. The quantity of blood varies considerably. I have seen her in two attacks, and during the last (the most severe so far) she lost easily a quart of blood. This last bleeding began about 1 p. m. and continued until almost 6 o'clock, in spite of all measures used. Opiates, ergot and fibrinogen, with an ice pack over the chest were used. Following the hemorrhage, blood-streaked sputum was expectorated for a couple of days, followed by dirty, brown sputum for a couple of weeks. The patient complained of a soreness over the right lung in the upper part of the chest. Following the hemorrhage, her blood pressure was 155 systolic, 90 diastolic, her pulse 81 and regular. Her present weight two months after the attack is 211 pounds (96 Kg.). Her blood count now is 5,000,200 red blood cells, 5,800 white blood cells, hemoglobin 70 per cent, coagulation time four minutes for a drop on a slide. Following an earlier hemorrhage, the patient reports an examination by a competent internist, with roentgenograms, and a report by him as to conditions in the chest. I would be grateful for suggestions as to the cause of these hemorrhages and their treatment. The patient looks forward with apprehension to these attacks.

M.D., Illinois.

ANSWER.—Pulmonary hemorrhage is caused by a number of conditions, not all of which are easily detected without special methods of examination. With the first hemorrhage occurring about twenty years ago, the second seven years ago, and a hemorrhage every year or two for the last seven years, one must consider such conditions as bronchiectasis, pulmonary abscess, pulmonary tuberculosis, broncholithiasis and varices of the trachea and bronchi. While it is probable that all the hemorrhages have been caused by the same condition, it is entirely possible for a new condition to have more recently developed, such as malignancy.

Good x-ray films of the chest in the anteroposterior and oblique diameters might be helpful in locating the condition. While it is impossible to determine with accuracy the eitology from x-ray films, the location of shadows facilitates other methods of examination. If shadows are found in the bases of one or both lungs, one should immediately investigate whether there is much sputum present and whether it has a fetid odor. The laboratory examination of the sputum for tubercle bacilli, fungi, spirochetes and fusiform bacilli may determine the etiology. However, if none of these micro-organisms are found, the introduction of iodized oil into the involved area followed by x-ray films may bring to light sacculations or dilatations of bronchial ramifications indicating bronchiectasis or even abscess cavities which could not be visualized by films made without the use of iodized oil. Moreover, the part of the lung and bronchial tree lying anterior to or posterior to the dome of the diaphragm and not ordinarily visualized may be distinctly outlined by the iodized oil, which casts a denser shadow than the dome of the diaphragm and subphrenic structures.

If the shadows are located in the upper half of one or both lungs, one should suspect tuberculosis more strongly and should put forth special effort to recover tubercle bacilli from the sputum, not only by numerous direct smear microscopic examinations but also by animal inoculation, culture and flotation methods. At the same time, one should make a careful search for other micro-organisms. In the event of failure to find any specific micro-organisms, if the sputum is foul one is justified in introducing iodized oil and making further x-ray films, since pulmonary abscess and bronchiectasis occasionally exist in the upper lobes.

When the microscopic examination and the iodized oil fail to reveal evidence of etiology, one is justified in making a bronchoscopic examination for the purpose of inspecting as much as possible of the involved region and if necessary the removal of a small amount of tissue for biopsy.

If the original x-ray film reveals no abnormal shadows except evidence of calcium deposits in the hilus or Ghon tubercle formation in the lung parenchyma, one must not overlook the fact that such calcium deposits through their sharp edges are capable of cutting through the walls of ramifications of the bronchi and producing hemorrhage. In some cases these calcium deposits will find their way into the lumen of a bronchial ramification and may be expectorated as a lung stone, or they may be aspirated into a dependent part of the bronchial tree, where they may set up a foreign body abscess. Again, they remain in the tissues adjacent to the bronchial wall and may be the cause of repeated hemorrhage. In such cases bronchoscopic examination may be the only method of determining the source of the hemorrhage. This is also the only method of determining the source of hemorrhage due to varices.

In some cases even bronchoscopic examination in the interval between hemorrhages produces no significant evidence, and therefore it becomes necessary to make this phase of the examination soon after a hemorrhage, while there is still some blood present which the bronchoscopist can trace to its source. Not infrequently the bronchoscopist finds previously unsuspected malignant, syphilitic or tuberculous lesions and occasionally previously undetected foreign bodies as the cause of hemorrhage.

One must not overlook the fact that repeated pulmonary hemorrhages are not infrequently caused by mitral stenosis. Therefore, careful examination of the heart is always indicated in such cases.

EXFOLIATIVE DERMATITIS

To the Editor:—I have a patient who has been diagnosed as having dermatitis (eczema) exfoliativa by a specialist in New York and Philadelphia and who has applied all kinds of ointments and antiseptic solutions without any result. It followed a nervous breakdown of two years' standing. He has been given solution of potassium arsenite by mouth, colloidal sulfur by vein and muscle, colonic irrigations, large doses of bromides, and other sedatives, yet the skin condition persists. I wonder if you can help me relieve this patient of some of his skin irritation. The Wassermann reaction is negative, blood chemistry is normal, the blood count is normal, urinalysis is normal, the basal metabolism is normal and gastric analysis is normal. He has also had an autogenous vaccine made from the lesions, a mixed staphylococcus and streptococcus vaccine, and small roentgen and ultraviolet treatments. I should like to know the possibility of his having a Monilia infection, as was diagnosed by one pathologist. Please omit name.

M.D., New Jersey.

ANSWER.—The occurrence of an exfoliative dermatitis presents a number of diagnostic possibilities. One must rule out the possibility of the condition being on a toxic (drug) basis secondary to arsenic or other heavy metal intoxication. Although now normal, the blood count should be repeated at regular intervals to rule out the prodromal stage of one of the lymphoblastomas. Is there any glandular or splenic enlargement? If a gland is enlarged, it as well as the skin should be examined microscopically to rule out a leukemia, pseudoleukemia or related conditions. A generalized monilial infection or a secondary toxic monilid is a possibility. With these, however, there should be a definite picture of an active yeast infection in the intertriginous areas, such as the groin, inframammary region, pendulous folds of the abdomen, or the axillae. While these conditions might simulate an exfoliative dermatitis, there is a greater tendency usually to moisture and oozing in yeast infections. Cultural examination for monilia should be made, but one must bear in mind that yeast may occur as a secondary invader in chronic exfoliative processes of the skin.

Any etiologic factor that may be revealed by further examination should be treated specifically. The use of warm alkaline and starch baths, bland ointments, equal parts of solution of calcium hydroxide and olive oil, a high vitamin diet (vitamins A, B and D), high caloric feedings and sodium thiosulfate intravenously are recommended. Autohemotherapy and dicalcium phosphate by mouth may also be used.

STRICTURE OF RECTUM

To the Editor:—I have three cases of stricture of the rectum. I have been told that the majority of cases of stricture of the rectum are due to granular inguinali, and not due to syphilis, as we were taught up to a few years ago. Would you please send me complete data?

JOSEPH HALTON, M.D., Sarasota, Fla.

ANSWER.—Strictures may be either malignant or benign and the latter may be inflammatory, syphilitic, gonorrheal, tuberculous, traumatic, dysenteric, and so on.

It is assumed that the three cases of stricture of the rectum mentioned in the query are examples of "inflammatory rectal stricture." Recent investigations have led to the belief that "syphilitic" stricture of the rectum is uncommon and that the coarctation so named is often caused by the virus of lymphogranuloma inguinale. The more common synonyms for this disease are the disease of Nicolas and Favre, poradenitis, climatic bubo, the sixth venereal disease, esthiomene, anorectal syphiloma, and the genito-ano-rectal syndrome.

The term "granular inguinali" as given in the query has no doubt been mistaken for the disease known as "granuloma inguinale." This entity has been confused with lymphogranuloma inguinale. As a means of avoiding such an error it has

been suggested that the title "lymphogranuloma inguinale" be changed to "lymphopathia venereum." The name "lymphopathia venerea" has also been suggested.

H. Stannus Stannus, in the preparation of his monograph entitled "The Sixth Venereal Disease," has reviewed more than 900 papers. He explains much of the confusion that existed formerly by the fact that climatic bubo, inflammatory rectal stricture, esthiomene and the like were believed to be separate clinical entities. It is now thought that these are among the various manifestations of a single disease entity, lymphopathia venerea.

The disease is usually venereal in origin. The primary external genital lesion in the male results in inguinal adenitis because of the nature of the lymphatic drainage of the external genitalia. When the primary lesion of the male is carried to the female, her initial lesion is likely to develop on the vaginal wall or on the cervix. The perirectal lymphatics are then involved either directly by way of the lymphatic network of the rectovaginal septum or indirectly through their connections with the vaginal and cervical collecting vessels lying in the rectal stalks. This is believed to be at least a part of the probable mechanism of the pathogenesis of inflammatory rectal stricture in the female. This type of stricture of the rectum does occur in the male, owing probably to sodomy or to a spread of the virus from anal to rectal lymphatics.

An excellent aid to the diagnosis of lymphopathia venerea is the skin reaction known as the Frei test. Probably the most suitable Frei antigen available at present is that prepared by Lederle from lymphogranulomatous mouse brains.

In addition to Stannus's monograph, the following works are recommended:

Nicolas, J.; Favre, M., and Durand: Lymphogranulomatose inguinale subaiguë d'origine génitale probable, peut-être vénérienne, *Bull. et mém. Soc. méd. d'hôp. de Paris* **35**: 274 (Jan. 31) 1913.

Hillsman, J. A.; Wilshusen, H. F., and Zimmerman, H. M.: Lymphogranulomatosis Inguinalis, *Arch. Dermat. & Syph.* **18**: 383 (Sept.) 1928.

Wolf, Jack, and Sulzberger, M. B.: Lymphopathia Venereum, *Brit. J. Dermat.* **44**: 192 (April) 1932.

Sulzberger, M. B., and Wise, Fred: Lymphopathia Venereum, THE JOURNAL, Oct. 22, 1932, p. 1407.

Lee, Henry, and Staley, R. W.: Inflammatory Strictures of the Rectum and Their Relation to Lymphogranuloma Inguinale, *Ann. Surg.* **100**: 486 (Sept.) 1934.

Wien, M. S.; Perlstein, Minnie O., and Nieman, B. H.: Inguinal Lymphogranuloma in Its Relation to Stricture of the Rectum, *Arch. Path.* **19**: 331 (March) 1935.

HYPERTENSIVE DISEASE

To the Editor:—In one specific case (in a Negro) the blood pressure reading, some five years ago, was 220 systolic, 150 diastolic. During the past years the blood pressure has been 120/80. In the five years the patient had what he described as paresis of the left upper face, which today is barely demonstrable. This is one of several cases in which marked hypertension cleared up after some injury. What would probably be the disease condition in this case and the explanation as to why the blood pressure returned to within normal limits and the patient is comparatively well.

E. J. BERANGER, M.D., New Orleans.

ANSWER.—The query does not state whether the hypertension of 220/150 five years ago was found on only a single observation or repeatedly and, if repeatedly, over how long a period. This is an essential point, for one must distinguish between the "hypertensive state" and "hypertensive disease." A state of hypertension or increased blood pressure may exist transiently without instituting the progressive changes of hypertensive disease (often loosely termed "essential hypertension"). The state of hypertension has the same physiologic background as the hypertension in hypertensive disease. Hypertensive disease is instituted by prolonged hypertension and may be said to occur when the hypertension becomes persistent and progressive. There are many factors that may cause a transient hypertension which subsides when the etiologic influences cease to operate. These etiologic factors may initiate hypertensive disease in constitutionally vulnerable individuals and/or when the provocative influences are of long duration. Eclampsia may be cited as an example; with the subsidence of the acute intoxication the arterial tension falls and persistence of hypertension and the initiation of hypertensive disease are the exception rather than the rule. If progressive hypertensive disease is initiated by eclamptic intoxication it implies a notably vulnerable constitution and susceptible vasomotor apparatus. Acute plumbism, psychic turmoil, fear, acute nephritis with good repair and other intoxications may cause a transient state of hypertension.

Hypertensive arterial disease manifests little or no tendency to remission; it is typically a persistently progressive disorder, varying greatly however in the rate of progression in different individuals.

The localized facial paresis may have been purely coincidental. There is no evidence presented in the query implying a necessary correlation of the reduced arterial tension and the paresis. It is conceivable, but highly improbable, that a cranial injury would so affect rather permanently the vasomotor center. Before drawing any conclusions from the statement that "marked hypertension cleared up after some injury" one must know the duration as well as the intensity of the hypertension existing prior to the injury, the nature of the injury and many other factors. No generalization is warranted by the present state of knowledge.

INVESTIGATION OF THYROID DEFICIENCY

To the Editor:—A white woman, aged 28, of American birth, felt normal until the age of 13. At that time menstruation began and she noted a marked diminution of her normal vigor and wished only to lie down. The menses were irregular from the start. She remained quite thin until the age of 17, when in two months she gained 22 pounds (10 Kg.), mostly in the form of a boggy swelling of the cheeks, under the arms and of the ankles. At this time she noted amenorrhea of three months' duration. After the next menstrual period the swelling disappeared and she felt slightly more vigorous. Physical examination was supposedly negative. At 18 she noticed a slight diffuse enlargement of the thyroid. After this she experienced more nearly her usual pep and vigor and lost practically all the swelling. Shortly after this a tonsillectomy was done and two weeks later an acutely inflamed appendix was removed. At 24 the thyroid was much larger and a lump was seen in the right side of the gland. Edema of the face, chest and ankles began again. One year later a thyroidectomy was done, at which time the basal metabolic rate (previous to operation) was minus 17. Four days after the operation, thyroid was started by mouth and has been continued since. She does not know what her blood pressure and pulse were before the operation, but both were elevated afterward and the edema was worse. She has been extremely nervous, has not menstruated, and has been unable to get the basal metabolic rate above —13 since that time. Her nails have broken off easily and her hair and skin have been extremely dry. There has been no interest in anything and she has wanted to rest all the time. Sexually she is very cold. She appears very plethoric but mentally is alert and keen. She is normal except for the dryness of the skin, brittleness of the nails, and puffiness of the cheeks, chest and ankles. Her legs are almost bronzed practically to the hips. The ankles pit slightly on pressure. The pulse rate is 132 and the blood pressure 155 systolic, 118 diastolic. The blood and the urine are normal and the basal metabolic rate is —23. I should like to have a complete diagnosis, if possible, and to have some suggestions as to possible treatment. Please omit ame.

M.D., Michigan.

ANSWER.—The correspondent's problem is a difficult one. No explicit diagnosis can be given without further study. Needed are urinalysis, tests of renal function, a series of metabolism determinations under basal conditions, a study of pulse rate and blood pressure during sleep and rest, and a study of sex hormones in the blood and urine. No opinion can be given relative to the adequacy of thyroid administration, as the correspondent does not state how much thyroid the patient has received. Moreover, there is wide variation in the amount of thyroid needed to elevate the metabolisms of patients with low metabolisms without myxedema. Provided there is no kidney disease, the hypertension is relatively insignificant, the pulse rate is normal under resting conditions, and the basal metabolism is consistently low, thyroid should be given in amounts sufficient to raise the metabolism gradually to a point within the accepted range of normal. If the condition of the patient improves under these circumstances, medication with thyroid could be continued. If no improvement results, intensive investigation is indicated.

HAIR DRESSING FOR ASTHMATIC CHILD

To the Editor:—Will you kindly suggest either the name or the formula for a hair dressing for an asthmatic child? Skin tests have shown that the child is sensitive to numerous proteins. Petrolatum has been unsatisfactory. The numerous popular hair dressings have an odor to which I am afraid the child may prove sensitive. Please omit name.

M.D., New York.

ANSWER.—To obtain a hair dressing to which an asthmatic child cannot be sensitized is impossible; but it should be easy to obtain one to which this particular child is not at this time sensitive. An alcoholic solution of castor oil, slightly scented with some perfume, as lemon verbena, to which the child is not sensitive, may give satisfaction. Castor oil is chosen because it is somewhat soluble in alcohol. If the child is sensitive to the oil or the perfume, other oils or perfumes may be substituted.

If, as the trial of petrolatum suggests, a dressing is desired that will paste down the hair, "set it" in rigid ringlets, as is the barbarous custom, the difficulty is somewhat greater. Mix 0.1 Gm. of tragacanth powder with 0.2 cc. of isopropyl alcohol in a large dry bottle. Add 8 cc. of hot water and shake vigorously. Dissolve 0.25 cc. of terpinol in 9.8 cc. of isopropyl alcohol and add it in small amounts to the mucilage of tragacanth, shaking the mixture each time. Then add rose water to make 100 cc. The hair may be wet with this before curling, provided no sensitization exists to any of the ingredients. Any procedure that interferes with vigorous daily brushing should be frowned on, for it deprives the scalp of needed stimulation.

ANEMIA IN CHILD

To the Editor:—A woman, American, aged 21, married, gave birth five years ago to an apparently normal 6 pound (2.7 Kg.) boy. At the age of 7 weeks and a few days he began refusing feedings at night. I was called to see the child about one week after it became sick. Realizing that the child was almost in a dying condition, I did a transfusion but death occurred in three or four hours. Because of the hurry I did not get a blood study. Apparently some severe anemia existed. I operated on the mother about three years ago, following the birth by two years. I did an appendectomy, suspension of the uterus and perineal repair but preserved the child bearing function because the couple earnestly desired a child. July 27, 1935, she gave birth to an apparently normal female child weighing 7 pounds 3 ounces (3,260 Gm.). It got along well for about three weeks; then on two occasions I was called out at night to see it. The child seemed to have had convulsions and stiffened out but, by the time I arrived, was apparently normal. It was always pale, especially the mucous membranes, but seemed to be gaining in a perfectly normal fashion and I did not make a blood study. At the age of 10 weeks it began to vomit all the feedings, and under change of diet it still vomited considerable (tentative diagnosis pyloric stenosis), and on the second day of illness, in addition to this pallor, it commenced to have a greenish cast. I then rushed it to the children's hospital realizing that the condition was an anemia. An immediate transfusion was performed. The blood picture was aplastic anemia with no evidence of regeneration of red blood cells (no immature forms found), and hemoglobin 20 per cent. The child died in twenty-four hours. Is is safe for these parents to have other children? Can the history of the first birth be linked with the second as a similar and hereditary condition? Would earlier treatment have been effective?

M.D., Ohio.

ANSWER.—The clinical descriptions and the blood examinations mentioned in the query are not sufficient to permit definite differential diagnosis as to the nature of the anemia. One recognizes several forms of familial anemia in new-born infants.

First there is the rarely occurring congenital, aplastic anemia, in which the blood shows no tendency to regeneration, red cells are diminished, there is a leukopenia, with relative increase of lymphocytes, and the blood platelets are markedly diminished. The bone marrow is white, composed of fat.

Second, sickle cell anemia may cause a hemolytic anemia, or the characteristic changes in the shape of the cells may be found without anemia. This variety occurs most commonly among Negro children, in many of whom the sickling remains latent. When the disease is active it tends to run a protracted course. Patients who are ill with this form of anemia are subject to intercurrent infections during which a severe anemia occurs.

Third, primary hemolytic anemia (familial hemolytic jaundice) is characterized by severe anemia, varying degrees of jaundice, large spleen, and increased fragility of the red cells in the presence of hypotonic salt solutions. This form of combined anemia and icterus may occur in successively born babies.

In this connection, too, must be mentioned familial icterus gravis, which affects several babies of the same family successively. The infant as a rule becomes violently ill within twenty-four or thirty-six hours after birth, with increasing jaundice. The condition terminates fatally with convulsions in a few days, though the disease may last for weeks, and some recoveries have been reported.

Whether it is safe for these parents to have other children cannot be answered categorically. Without doubt there is a definite hazard for the next baby, though cases of familial icterus gravis are recorded in which one or two normal infants have been born and remained well while several others have died. From what has been said it is probable that the two infants died of the same disorder. In rapidly progressive cases of familial icterus gravis no form of treatment has been of any avail.

SYPHILITIC OPTIC ATROPHY

To the Editor:—I have a patient who has optic atrophy (syphilitic) in one eye with some pallor of the disk and vision of 20/25. The field extends out about 30 degrees (for 18/360 mm. object). The other eye is normal in vision with a slight concentric contraction of the peripheral limits of the field. He has been treated for several months for a syphilitic infection. During the treatment the peripheral limits of vision became contracted. What is the best preparation to use for general infection when an optic atrophy or optic neuritis is present?

WENDELL L. HUGHES, M.D., Hempstead, L. I., N. Y.

ANSWER.—The use of arsenicals in the treatment of syphilitic optic atrophy should be stopped at the first sign of constriction of the peripheral fields. Even tryparsamide is not recommended when such a condition exists. Most men are using bismuth compounds intramuscularly. For the optic atrophy E. Stastnik (*Ceskol ofthal.* **1**:114, 1934) recommends the use of gold chloride. A. Busacca (*Klin. Monatsbl. f. Augenh.* **90**:352 [March] 1933) reported on the use of sulfur in this condition, and B. Fleischer (*Klin. Monatsbl. f. Augenh.* **90**:335 [March] 1935) reported favorable results with fever therapy.

L. L. Mayer and R. D. Smith (*Illinois M. J.* **65**:258 [March] 1934) reported the study of a series of cases treated with tryparsamide, and N. K. Lazar (*Arch. Ophth.* **11**:240 [Feb.] 1934) reported a similar series treated with neoarsphenamine. Retrobulbar injections of atropine sulfate have also been used, but favorable results have not occurred. The safest, and preferable, medication is a bismuth compound intramuscularly.

DIFFERENTIAL DIAGNOSIS OF GONORRHEAL ARTHRITIS

To the Editor:—A man, aged 36, a Spaniard, whose previous history was negative except for gonorrhea about fifteen years ago, in May 1935 developed pain in the right heel and a stiff neck, which disappeared with sodium salicylate. The temperature at the time was 103 F., the pulse 120. Since then he has had migrating pains in all the joints of the body but no fever. Physical examination is always negative as to swelling, tenderness, murmurs, temperature and pulse rises. His pains have not been relieved by salicylates since the first attack. The patient is an etcher of glass, using hydrofluoric acid and hydrochloric acid. He works alternate weeks and has noticed that after working (standing for eight hours), the pains begin in the heel and then migrate to the joints (large and small). The weeks that he does not work he feels better. He has had diathermy, salicylates and has just had 2 cc. of a preparation containing 20 mg. of colloidal sulfur intravenously twice weekly for six weeks with the result that the pains are less severe. Is there anything else that I can do for the patient? Has the old gonorrhea anything to do with his arthritic pains? Has his occupational use of the hydrofluoric acid any factor in his case? Please omit name.

M.D., New York.

ANSWER.—Though the case sounds most like that of a focal infection, no mention is made of studies for such conditions; hence it is impossible to discuss it categorically. While gonorrhea may or may not have been a factor in the production of a chronically infected prostate, there is not the remotest likelihood of the case being one of gonorrheal arthritis after such a lapse of time. Search of teeth, tonsils, prostate and, possibly, the gastro-intestinal tract might reveal an underlying cause. Obviously the exciting cause is postural. Underlying all there probably is some perversion of physiologic function that favors early fatigue as well as focal infections.

So far as his contacts with hydrofluoric and hydrochloric acids are concerned they apparently can be disregarded. Inquiry among those who for years have employed glass etchers fails to reveal a single case of arthritis among them.

Treatment apparently rests in correction of perverted physiologic function, removal of foci of infection, correction of postural defects, rest in the unemployed periods and possibly muscle strengthening exercises.

SIGNIFICANCE OF CHANGES IN BLOOD PRESSURE

To the Editor:—A man aged 40, was rejected for life insurance because of a blood pressure of 190 systolic, 130 diastolic. The systemic history and physical examination were negative except for low grade auricular fibrillation. The past history was absolutely negative except for a frequent intense pulsating headache, generally distributed over the head. On a prescription of sodium nitrite one-half grain (0.03 Gm.), glyceryl trinitrate 1/150 grain (0.0004 Gm.) and sodium bromide 3 grains (0.2 Gm.) four times a day, the blood pressure one week later was 170/140, without headache. The Mosenthal test was negative, and the cardiac rhythm was regular. One week later the blood pressure was 155/145. I have discontinued the prescription for a while. Why should the diastolic pressure approach the lowering systolic, and what may result from this low pulse pressure? Kindly omit name.

M.D., Pennsylvania.

ANSWER.—The rise in diastolic pressure is of ominous import, particularly if it persists. The diminishing pulse pressure resulting from the reduction of the systolic tension implies a weakening myocardium, which is asthenic and no longer fully competent. Such an interpretation would be confirmed by a rising pulse rate; the pulse rate is not mentioned in the query. The rise in diastolic pressure may have been secondary to the diminished pulse pressure because of histanoxia of the cerebral vasomotor centers, or it may possibly be attributed to a paradoxical reaction to nitrites. The dose of nitrites was rather large. Burgess and others have reported a secondary rise in diastolic tension occurring after the preliminary fall on administration of glyceryl trinitrate or amyl nitrite. The more probable explanation is the former. The effects of hypertension are due to malcirculation of this, that or another vital parenchymatous tissue. The capillary circulation rather than being increased by hypertension is grossly diminished by arteriolar constriction. It should be emphasized that the site of the increased resistance responsible for the diastolic hypertension is in the arterioles, proximal to the capillaries.

An amyl nitrite test (Stieglitz, E. J.: Arterial Hypertension, *Arch. Int. Med.* **46**:227 [Aug.] 1930) might prove most illuminating in this instance. If extensive arteriolarsclerosis already exists (as evidenced by failure of the diastolic tension to fall

greatly on inhalation of amyl nitrite), vasodilator or any other medication will and can accomplish but little and treatment must be then directed toward maintaining the cardiac vigor. The cardiac nutrition must be considered as of primary importance and an adequate supply of dextrose and oxygen assured; anemia, which is common in hypertensive arterial disease, requires energetic treatment.

SCARRING AFTER TONSILLECTOMY

To the Editor:—Some one has attempted to prove recently that the tonsil has no real capsule and that, in removing it, one dissects it out of the fascia separating it from the muscle structures adjacent. If this is true, it might offer a partial explanation for the fact that in many cases in spite of what appears to have been good surgery there has been contracture, scarring or obliteration of the pillars. If the tonsil has no capsule and is merely attached by fascia, this would appear to be an after-effect that would be difficult to avoid in many cases, owing to the contractures in the contour of the tonsil fossa in the process of healing. I have looked into many throats, especially of children, and found the condition. It also occurs in adults in whom a careful inspection immediately following operation shows no apparent injury to the pillars. Is the "disappearance," "absorption" or "destruction" of the pillars following tonsillectomy always the result of faulty technic? Please omit name.

M.D., Missouri.

ANSWER.—The statements concerning the so-called capsule of the tonsil are substantially correct. What is designated as the "capsule" is in reality that part of the fascia covering the superior constrictor muscle which clings to the tonsil following its removal.

As to scarring after tonsillectomy, it is probably true that part of the time the ill effects observed are due to faulty technic and that part of the time with the best of technic the scarring is due to individual peculiarities in healing. As most people do not complain, failure to get a cosmetically perfect result following a proper tonsillectomy is of no practical significance.

OTOSCLEROSIS

To the Editor:—A woman, aged 28, gave birth to a child seven years ago. During the third month of this pregnancy she began to complain of head noises and impaired hearing. As the years have passed, her hearing has become progressively worse. This condition has been diagnosed by different ear specialists as otosclerosis. They have advised various forms of treatment. Despite it all, her condition is growing worse. The patient is very anxious to have another child despite the possibility of a pregnancy exaggerating her illness. In view of the fact that she may become worse whether she is pregnant or not, should she be allowed to become pregnant again? Kindly advise me as to any form of treatment that you think may improve or check this condition. If there are any special references which you think are of any value in treating this condition, please advise me. Please omit name.

M.D., New York.

ANSWER.—From the history as given and from the fact that the hearing has become progressively worse the diagnosis of otosclerosis, especially if it has been confirmed by functional tests of hearing, is probably correct. There is today no treatment for the cure of otosclerosis or for the palliation of the condition. It is quite true that without becoming pregnant the patient may suffer a further loss in hearing. It is also true that she need not necessarily become more deaf if she becomes pregnant again. The choice as to a second pregnancy, in the opinion of many men, would lie entirely with the patient, as she is the one who makes the sacrifice. Furthermore, if she is already so deaf that unaided by a device she cannot hear normal conversation, whatever impairment the next pregnancy might produce will not make a great deal of practical difference.

SENSITIZING AGENT IN RHUS POISONING

To the Editor:—I was told recently that the etiologic agent producing dermatitis venenata was the same in all the members of the genus Rhus; that is, that if an individual was sensitive to Rhus toxicodendron he would also be sensitive to Rhus diversiloba, rhus vermicifera, and so on. My informant was unable to state the source of his information. Do you know of any work done to substantiate this?

C. RUSSELL ANDERSON, M.D., Canby, Minn.

ANSWER.—The opinion of investigators on the subject is that the active ingredient of all the species is a phenolic resin, "toxicodendrol," contained in the sap obtained when the plant is injured. Authorities state that this substance is identical or very similar in all the Rhus species. Investigation has shown that 0.001 mg. applied to the skin results in severe vesiculation. Members of the group in which this has been found are Rhus toxicodendron, Rhus diversiloba and Rhus vernix. Complete literature and discussion can be found in: McNair: Rhus Dermatitis, University of Chicago Press, 1923; Pfaff: *J. Exper. Med.* **2**:181, 1897; Ford, W. W.: *Centralbl. f. Bakt.* **58**:129, 1913.

RADIODERMATITIS

To the Editor:—I have a patient who is suffering from a severe dermatitis involving the complete right pectoral region. It is erythematous, vesicular and angiomatous, and it causes a great deal of itching. The patient was operated on for cancer on that side twelve years ago, when a complete mastectomy was done, followed by roentgen therapy. Do you believe that there is a relationship between the present dermatitis and the roentgen therapy given twelve years ago, and also what is the proper therapy?

M.D., New York.

ANSWER.—The description is that of a radiodermatitis appearing as a sequel to intensive roentgen therapy administered after the mastectomy. The present dermatitis has probably existed in mild degree associated with atrophy, telangiectasia and some pigmentation for some time and has probably become more acute recently because of local irritating factors.

While soothing lotions and bland ointments are effective, more recently excellent results have been obtained through the application of aloe vera in the form of the leaves (Collins, C. E., and Collins, Creston: *Am. J. Roentgenol.* **33**:396 [March] 1935. Wright, C. S.: Aloe Vera in the Treatment of Roentgen Ulcers and Telangiectasis, THE JOURNAL, April 18, p. 1363).

DISABILITY AFTER ABDOMINAL OPERATION

To the Editor:—I should like to know what the accepted time is before a man returns to work after he has had an abdominal operation. In other words, after a man has had an abdominal operation, what is the accepted time of disability before he should return to work, or just how long should he refrain from working so as not to injure his side?

M.D.

ANSWER.—There is no generally accepted period for disability following an abdominal operation.

It is not unusual for a person to return to office work in from three to four weeks. Light work may often be permitted in from four to six weeks. If one must return immediately to heavy work, two months is usually advised. The extent of the operation, condition of the patient, type of incision, occurrence of minor or major complications and various other factors may prolong the period of disability.

DIARRHEA FOLLOWING USE OF GALLBLADDER DYE PREPARATION

To the Editor:—Quite frequently when a tetraiodophenolphthalein preparation is given orally, and with the proper preparation, that is, a fat-free diet and no cathartic, the patients will present themselves the following morning stating that they have had a severe diarrhea since taking the dye. Roentgen examination of the gallbladder reveals no concentration. What condition or conditions will produce this diarrhea, and what is the most common cause? Is there any way to prevent subsequent administrations of the dye from producing the same results? Please omit name.

M.D., Missouri.

ANSWER.—Diarrhea following gallbladder dye preparations is due to the essentially cathartic nature of the phenolphthalein radical. Patients who give this reaction should receive a preliminary dose of powdered opium 0.060 Gm. or tincture of opium 1 cc., which will prevent the diarrhea and secure retention of the dye and its concentration in the gallbladder.

CLIMATIC TREATMENT OF BRONCHITIS

To the Editor:—A boy, aged 9 years, is susceptible to acute bronchitis. Would North Carolina be a good climate for him? His bronchitis is rather nonproductive—that is, he does not bring up much phlegm. What towns or states would be best for him and especially as to North Carolina? Please omit name.

M.D., Chicago.

ANSWER.—A locality in North Carolina known for its equable temperature would doubtless be beneficial. A place farther south, as in Florida, might offer more advantages. The Southwest is especially desirable because of its dry climate. The change of location, as well as other treatment, will depend on just what the "bronchitis" is. In children, a granular pharyngitis is a frequent cause, and such a condition does well in the Southwest.

MEASUREMENTS OF PREGNANT UTERUS

To the Editor:—Will you please inform me as to the metric measurements of a two months pregnant uterus of a primipara? I am unable to find this information from any of my medical books. The woman weighs about 120 pounds (54 Kg.).

FRANK A. REMDE, M.D., Bottineau, N. D.

ANSWER.—The nonpregnant uterus generally measures from 6.5 to 7 cm. In a primipara, at the end of a two months gestation, the length of the uterus is approximately 9 to 9.5 cm.

Medical Examinations and Licensure

COMING EXAMINATIONS

STATE AND TERRITORIAL BOARDS

ALABAMA: Montgomery, June 23-25. Sec., Dr. J. N. Baker, 519 Dexter Ave., Montgomery.

ARIZONA: *Basic Science.* Tucson, June 16. Sec., Dr. Robert L. Nugent, Science Hall, University of Arizona, Tucson. *Medical.* Phoenix, July 7-8. Sec., Dr. J. H. Patterson, 826 Security Bldg., Phoenix.

CALIFORNIA: San Francisco, July 6-9, and Los Angeles, July 20-23. Sec., Dr. Charles B. Pinkham, 420 State Office Bldg., Sacramento.

COLORADO, Denver, July 7. Sec., Dr. Harvey W. Snyder, 422 State Office Bldg., Denver.

CONNECTICUT: *Basic Science.* New Haven, June 13. *Prerequisite to license examination.* Address State Board of Healing Arts, 1895 Yale Station, New Haven.

FLORIDA: Jacksonville, June 15-16. Sec., Dr. William M. Rowlett, P. O. Box 786, Tampa.

GEORGIA: Atlanta, June 10-11. Joint-Sec., State Examining Boards, Mr. R. C. Coleman, 111 State Capitol, Atlanta.

ILLINOIS: Chicago, June 23-26. Superintendent of Registration, Department of Registration and Education, Mr. Homer J. Byrd, Springfield.

INDIANA: Indianapolis, June 16-18. Sec., Board of Medical Registration and Examination, Dr. William R. Davidson, Room 5 State House Annex, Indianapolis.

IOWA: Iowa City, June 2-4. Dir., Division of Licensure and Registration, Mr. H. W. Grefe, Capitol Bldg., Des Moines.

KANSAS: Topeka, June 16-17. Sec., Board of Medical Registration and Examination, Dr. C. H. Ewing, 609 Broadway, Larned.

KENTUCKY: Louisville, June 10-12. Sec., State Board of Health, Dr. A. T. McCormack, 532 W. Main St., Louisville.

LOUISIANA: New Orleans, June 4-6. Sec., Dr. Roy B. Harrison, 1507 Hibernia Bank Bldg., New Orleans.

MAINE: Augusta, July 7-8. Sec., Board of Registration of Medicine, Dr. Adam P. Leighton, 192 State St., Portland.

MARYLAND: *Medical (Regular).* Baltimore, June 16. Sec., Dr. John T. O'Mara, 1215 Cathedral St., Baltimore. *Medical (Homeopathic).* Baltimore, June 9-10. Sec., Dr. John A. Evans, 612 W. 40th St., Baltimore.

MICHIGAN: Detroit, June 8-10, and Ann Arbor, June 10-12. Sec., Board of Registration in Medicine, Dr. J. Earl McIntyre, 202-3-4 Hollister Bldg., Lansing.

MINNESOTA: *Basic Science.* Minneapolis, June 2-3. Sec., Dr. J. Charnley McKinley, 126 Millard Hall, University of Minnesota, Minneapolis. *Medical.* Minneapolis, June 16-18. Sec., Dr. Julian F. Du Bois, 350 St. Peter St., St. Paul.

MISSISSIPPI: Jackson, June 22-23. Sec., State Board of Health, Dr. Felix J. Underwood, Jackson.

MISSOURI: St. Louis, June 4-6. State Health Commissioner, Dr. E. T. McGaugh, State Capitol Bldg., Jefferson City.

NEBRASKA: Omaha, June 9-10. Dir., Bureau of Examining Boards, Mrs. Clark Perkins, State House, Lincoln.

NEW JERSEY: Trenton, June 16-17. Sec., Dr. Arthur W. Belting, 28 W. State St., Trenton.

NEW YORK: Albany, Buffalo, New York, and Syracuse, June 22-25. Chief, Professional Examinations Bureau, Mr. Herbert J. Hamilton, 315 Education Bldg., Albany.

NORTH CAROLINA: Raleigh, June 15. Sec., Dr. Ben J. Lawrence, 503 Professional Bldg., Raleigh.

NORTH DAKOTA: Grand Forks, July 7-10. Sec., Dr. G. M. Williamson, 4½ S. 3d St., Grand Forks.

OHIO: Columbus, June 16-19. Sec., State Medical Board, Dr. H. M. Platter, 21 W. Broad St., Columbus.

OKLAHOMA: Oklahoma City, June 10-11. Sec., Dr. James D. Osborn Jr., Frederick.

OREGON: Portland, June 16-18. Sec., Dr. Joseph F. Wood, 509 Selling Bldg., Portland.

PENNSYLVANIA: Philadelphia and Pittsburgh, July 7-11. Sec., Board of Medical Education and Licensure, Mr. Clarence E. Ackley, 400 Education Bldg., Harrisburg.

SOUTH CAROLINA: Columbia, June 23. Sec., Dr. A. Earle Boozer, 505 Saluda Ave., Columbia.

TEXAS: Austin, June 23-25. Sec., Dr. T. J. Crowe, 918-19-20 Mercantile Bldg., Dallas.

UTAH: Salt Lake City, July 10. Dir., Department of Registration, Mr. S. W. Golding, 326 State Capitol Bldg., Salt Lake City.

VERMONT: Burlington, June 24. Sec., Board of Medical Registration, Dr. W. Scott Nay, Underhill.

VIRGINIA: Richmond, June 18-20. Sec., Dr. J. W. Preston, 28½ Franklin Rd., Roanoke.

WASHINGTON: *Basic Science.* Seattle, July 9-10. *Medical.* Seattle, July 13-15. Dir., Department of Licenses, Mr. Henry C. Huse, Olympia.

WISCONSIN: *Basic Science.* Milwaukee, June 6. Sec., Prof. Robert N. Bauer, 3414 W. Wisconsin Ave., Milwaukee. *Medical.* Milwaukee, June 30-July 3. Sec., Dr. Robert E. Flynn, 401 Main St., La Crosse.

WYOMING: Cheyenne, June 8. Sec., Dr. G. M. Anderson, Capitol Bldg., Cheyenne.

NATIONAL BOARD OF MEDICAL EXAMINERS

NATIONAL BOARD OF MEDICAL EXAMINERS. *Parts I and II.* June 22-24 and Sept. 14-16. Ex. Sec., Mr. Everett S. Elwood, 225 S. 15th St., Philadelphia.

SPECIAL BOARDS

AMERICAN BOARD OF OPHTHALMOLOGY: New York, Sept. 26. *All applications and case reports must be filed sixty days before date of examination.* Asst. Sec., Dr. Thomas D. Allen, 122 S. Michigan Ave., Chicago.

AMERICAN BOARD OF PEDIATRICS: Albany, N. Y., June 10, Baltimore and Cincinnati in November. Sec., Dr. C. A. Aldrich, 723 Elm St., Winnetka, Ill.

Minnesota January Examination

Dr. Julian F. Du Bois, secretary, Minnesota State Board of Medical Examiners, reports the oral, written and practical examination held in Minneapolis, Jan. 21-23, 1936. The examination covered 12 subjects. An average of 75 per cent was required to pass. Fifty-two candidates were examined, all of whom passed. Two physicians were licensed by reciprocity and 3 physicians were licensed by endorsement. The following schools were represented:

School — PASSED	Year Grad.	Per Cent
Stanford University School of Medicine	(1931) 88.6, (1932)	88.1
George Washington University School of Medicine	(1933)	89.1
Loyola University School of Medicine	(1935)	83
Northwestern University Medical School	(1912) 76.3, (1934)	87, 89.3
Rush Medical College	(1934)	84.3, 90.5
School of Medicine of the Division of the Biological Sciences	(1931)	83.6
University of Illinois College of Medicine	(1935)	88.2
Indiana University School of Medicine	(1934)	90.2
Tulane University of Louisiana School of Medicine	(1933) (1934) 85.3	91,
Johns Hopkins Univ. School of Medicine	(1931) 88.2, (1935)	86.5
Harvard University Medical School	(1931)	88.3
University of Michigan Medical School	(1933)	84.5
University of Minnesota Medical School	(1933) (1934) 78.6, 89.6, 90, (1935) 80.4, 83.6,* 84.4, 84.6,* 85.1,* 85.3, 85.5, 88.2,* 88.4,* 88.5,* 93*	82.5,
St. Louis University School of Medicine	(1933)	87.4
University of Missouri School of Medicine	(1903)	96.1
University of Buffalo School of Medicine	(1921)	83.1
University of Cincinnati College of Medicine	(1934)	91.4
Jefferson Medical College of Philadelphia	(1934)	90.6
Temple University School of Medicine	(1933)	87.3, 88.5
University of Pennsylvania School of Medicine	(1932) (1933) 87, 87.3, 88.2, 89.1	88.3, 89.5,
University of Pittsburgh School of Medicine	(1933)	90.1
Vanderbilt University School of Medicine	(1933)	88.1
Baylor University College of Medicine	(1931)	86
Medical College of Virginia	(1934)	90.3
Dalhousie University Faculty of Medicine	(1933)	85
McGill University Faculty of Medicine	(1935)	88.2

School — LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
University of Nebraska College of Medicine	(1934)	Nebraska
Jefferson Medical College of Philadelphia	(1921)	Penna.

School — LICENSED BY ENDORSEMENT	Year Grad.	Endorsement of
University of Minnesota Medical School	(1935)	N. B. M. Ex.
Washington University School of Medicine	(1934)	N. B. M. Ex.
University of Pennsylvania School of Medicine	(1933)	N. B. M. Ex.

* This applicant has received the M.B. degree and will receive the M.D. degree on completion of internship.

Washington January Examination

Mr. Harry C. Huse, director, Department of Licenses, reports the written examination held in Seattle, Jan. 13-15, 1936. The examination covered 17 subjects and included 70 questions. An average of 75 per cent was required to pass. Twenty-one candidates were examined, 20 of whom passed and 1 failed. Ten physicians were licensed by reciprocity and 5 physicians were licensed by endorsement after an oral examination. The following schools were represented:

School — PASSED	Year Grad.	Per Cent
University of Southern California School of Medicine	(1935)	86
George Washington University School of Medicine	(1935)	83
Georgetown University School of Medicine	(1925)	82
Northwestern University Medical School	(1935)	82, 88*
Rush Medical College	(1933) 88, (1935)	84
School of Medicine of the Division of the Biological Sciences	(1935)	81
University of Louisville School of Medicine	(1934)	83
University of Minnesota Medical School	(1935)	88
St. Louis University School of Medicine	(1934)	82
Creighton University School of Medicine	(1935)	78, 80
Western Reserve University School of Medicine	(1928)	86
University of Oregon Medical School	(1931) (1934) 89, (1935) 83	87,
Hahnemann Medical College and Hosp. of Philadelphia	(1933) (1934) 85	86,
Jefferson Medical College of Philadelphia	(1934)	85

School — FAILED	Year Grad.	Per Cent
Rush Medical College	(1933)	69

School — LICENSED BY RECIPROCITY	Year Grad.	Reciprocity with
College of Medical Evangelists	(1929)	California
Bennett Medical College, Chicago	(1912)	Iowa
Loyola University School of Medicine	(1930)	Montana
State University of Iowa College of Medicine	(1934)	Iowa
University of Nebraska College of Medicine	(1934)	Nebraska
University of Oregon Medical School	(1934, 2)	Oregon

Vanderbilt University School of Medicine	(1930)	Tennessee
University of Virginia Department of Medicine	(1931)	Virginia
University of Wisconsin Medical School	(1932)	Oregon

School	LICENSED BY ENDORSEMENT	Year Grad.	Endorsement of
College of Medical Evangelists		(1935)	N. B. M. Ex.
Harvard University Medical School		(1932), (1934, 2)	N. B. M. Ex.
University of Oregon Medical School		(1933)	N. B. M. Ex.

* This applicant has received the M.B. degree and will receive the M.D. degree on completion of internship.

Book Notices

The International Labour Organisation and Social Insurance. International Labour Office, Studies and Reports, Series M (Social Insurance), No. 12. Paper. Price, $1.50; 5s. 6d. Pp. 219. New York: World Peace Foundation; Geneva, 1936.

This is a continuation of previous studies and reports. It summarizes developments in social insurance throughout the world. The various conventions that instructed the International Office to support social insurance are given. The report is prefaced by an argument in favor of such insurance. Legislation in the various countries on workmen's compensation, sickness insurance, invalidity, old age, widows' and orphans' insurance and on migrant workers' pensions are listed according to date in various countries. The section on sickness insurance notes (p. 51) that "the principal object is now to restore health and working capacity, and first place is therefore given to medical, surgical and pharmaceutical benefits." The function of compensation has given way to that of restoration. There is no discussion of the fitness of institutions organized as dispensaries of cash benefits to become administrators of medical care. The attitude on the relations of insurance carriers to the medical profession is seen by the statement that the International Conference (p. 54) "did not go into the matter of medical fees, but the precautions it took to protect insurance institutions against exaggerated demands show that it was aware of the need for organizing the medical service of insurance institutions on rational and economical lines." There is no suggestion that the quality of the medical service needed to be protected or of the possibility of the deterioration of such a system under insurance. This report with the preceding ones in the same series forms the largest compilation of source material on social insurance throughout the world.

A Square Deal for the Narcotic Addict. By William H. Ladue, M.D., Attending Physician, Champlain Valley and Physicians Hospitals, Plattsburgh, New York. Paper. Price, $1. Pp. 131. Plattsburgh, New York: The Author, 1935.

According to the author this little volume was written for the purpose of initiating discussion on the narcotic drug addiction situation in America, with special relation to its proper placement among our social problems. He dedicates his book by a quotation from Sir Arthur Helps, "The world will tolerate many vices but not their diminutives." This quotation may imply that the author regards drug addiction as a diminutive or insignificant vice. It is evident, however, that this implication is unjust, for he states in the preface that "Drug addiction is a large problem. A thorough knowledge of it belongs to the future. Enough information, however, is at hand to warrant one in asking for a review of the Narcotic Drug Laws. . . . In the stand taken, the author differs with those who hold that narcotic drug addiction is a menace of such magnitude and imminence as to warrant drastic laws to check it. Statistical data are offered to show that the narcotic drug evil in contrast with that of alcohol is of minor importance."

There is evidence throughout the book that the author finds fault with the disproportionate emphasis being placed on drug addiction as a problem in the United States in comparison with chronic alcoholism. He uses this analogy as the principal theme for "A Square Deal for the Narcotic Drug Addict." The fact that chronic alcoholism constitutes a medicosociological problem of some magnitude that is condoned and neglected without concerted efforts being made to formulate or adopt a public policy for a solution is in itself no justification for "A Square Deal for the Narcotic Addict." The analogy that the so-called menace of narcotic drug addiction has been exaggerated cannot justify that this medicosociological problem should be condoned in the same manner as chronic alcoholism is condoned, since two wrongs can never make a right.

The author rightly condemns those individuals and groups of individuals who use the so-called drug addiction menace as a means for aggrandizing themselves, bringing themselves into the limelight or using propaganda to promote their political preferment or the collection of funds to combat drug addiction.

The author quotes as an appendix to his book a "Digest of Essential Features Required in a State Narcotic Defense Law," which he calls in his text "The Uniform Narcotic Law."

The Uniform Narcotic Law was recommended by the Commissioners of Uniform State Laws, endorsed by the American Medical Association, the Bureau of Narcotics, the United States Public Health Service, and the American Bar Association. The draft of the Uniform State Narcotic Law was the result of many conferences and studies extending over a period of some five years. Whereas the author presumably leaves the impression that he reviews the narcotic laws, he seems not to have knowledge of the good work that has been undertaken by the Commissioner on Uniform State Laws.

The text is a clerical compilation, with many errors of omission and commission. There is no index.

Chronic Rheumatism: Causation and Treatment. By R. Fortescue Fox, M.D., F.R.C.P., F.R.Met.S., President of the International League Against Rheumatism, and J. van Breemen, M.D., Honorary Secretary of the International League Against Rheumatism. Cloth. Price, 12s. 6d. Pp. 364, with 46 illustrations. London: J. & A. Churchill, Ltd., 1934.

The distinguished authors of this book are the president and the secretary of the International League Against Rheumatism, the organization which above all others can claim responsibility for the amazing increase of interest in rheumatic diseases that has been aroused throughout the world during the last ten years. Those familiar with the range of their activities and the breadth of their experiences will expect from these authors not just another book on rheumatism but one different from all others. They will not be disappointed. The title, however, is a little misleading. The scope of the book is not as broad as the title would indicate. Its information is of a more special sort. Its chief concern is the physiologic alterations underlying chronic rheumatism and the rationale of their treatment by physical therapy. The authors stress the great value of physical therapy simply because they believe that, of a large number of forms of treatment which they have used, physical therapy gives by far the best results.

It is unfortunate that physicians in this country utilize physical therapy only meagerly, in spite of the fact that years, even centuries, of experience have shown it to be perhaps the most effective measure in the treatment of chronic rheumatism. American physicians do not prescribe physical therapy because they themselves know so little about its principles and technic, because there are so few trained physical therapists available to help the physician out, or because they somehow hesitate to use a remedy "soiled" by the touch of irregular practitioners. There are available several good books which explain in detail the indications and methods of physical therapy, but the average physician is not interested. There are a number of good clinical handbooks on rheumatic diseases but generally when the author, who is usually a clinician, reaches the chapter on therapy he dismisses the important subject of physical therapy by a few broad if glowing generalities. This book represents one of few examples that bridge the gap between physical therapy books, which the average doctor does not buy, and clinical handbooks on rheumatic diseases, of which there is beginning to be a plethora.

The authors discuss in detail disturbances in circulatory function which they believe underly "the rheumatic diathesis" and are responsible for the first symptoms of rheumatism. The skin is an organ of many functions and is that organ through which physical therapy acts. Whereas the majority of spa physicians, in this country at least, are notable for their inarticulateness and for their willingness to remain content merely with the fact that physical therapy helps the patient without explaining why it helps, the authors of this book go much further. They are not physical therapists but are clinicians who have used physical therapy to its greatest advantage yet have always kept the clinical point of view. Thus they tell so

far as possible why certain kinds and amounts of physical therapy help and why certain others do not. The result is a book that is decidedly clinical and useful for general practice.

On the debit side are certain sins of omission, none the less regrettable because admitted by the authors. Data on pathology and bacteriology and on many current forms of treatment are either omitted entirely or are hardly more than mentioned. Chapter VI discusses various "clinical pictures" that describe various types of chronic rheumatism. Some of the subdivisions of chronic rheumatism mentioned and apparently accepted by the authors as established entities are not generally acceptable to rheumatologists, mainly because the clinical and pathologic bases for them have not been adequately described. The authors do nothing to clarify these underdeveloped pictures, such as "climacteric" or menopausal arthritis, or tuberculous rheumatism. The case reports used to represent such entities are inadequate to make clear why the authors have accepted them.

Certain expressed views are definitely at variance with the opinion of the majority of physicians of even as wide experience as the authors; for example, the declaration that Heberden's nodes, so commonly seen in elderly women, are a definite expression of female gout. Not a few statements are baldly made and have little or no evidence to support them; for example, the assertion that vaccine ought not to be used simultaneously with physical measures or spa treatments, or that rhizomelic spondylosis is definitely of infectious origin, especially gonorrheal and tuberculous. In subsequent printings two changes should certainly be made. References are generously supplied, but their presentation does not conform to standard methods; many, indeed the majority, are incomplete. The year of a book's publication, the city where it was published, the volume number, the year of publication or the pagination of articles frequently is omitted. The index should certainly be amplified; many important topics that are discussed in considerable detail are not listed in the index. Thus the book loses much of its value as a reference work.

Among the most valuable parts of the book are chapters dealing with comparative nomenclature (English, American, German, French), rheumatism as an international social problem of the greatest magnitude, rheumatism in industry, the treatment and prevention of industrial rheumatism, suggestions for the establishment of rheumatism centers and treatment clinics, and suggestions for the development of local and international research. These chapters include data valuable to the physician charged with the executive responsibility of managing an arthritis clinic, a hospital service, a research investigation, or a spa practice for rheumatism patients.

Transactions of the American Philosophical Society for Promoting Useful Knowledge, Held at Philadelphia. New Series—Volume XXVII: Anatomy of the Rat. By Eunice Chace Greene. Cloth. Price, $5. Pp. 370, with 339 illustrations. Philadelphia: The American Philosophical Society, 1935.

The rat is perhaps the animal most commonly used for experimental work at the present time and often by individuals who possess an inadequate knowledge of its structure. This book was designed to serve as "a reference book or atlas for research workers, instructors and advanced students in comparative anatomy." There are approximately 125 pages of text description, the remaining pages carrying the well executed illustrations and captions. Many of the illustrations occupy a full page and more than 180 of them carry one, two or three colors to designate distribution of arteries, veins and nerves among the viscera and muscles. The text as well as the illustrations was executed by the author from personally dissected specimens. Minute anatomic detail for muscles, bones and ligaments of appendages and even digits, as well as individually separated bony elements of the skull indicate the extensiveness of the remarkably clear illustrations. The brain is treated from external gross details and not by brain slices or sections. Microscopic anatomy is not included for any parts. The book is a beautifully executed atlas and will prove a welcome and valuable reference for anatomic details of the rat. It can be recommended to any one interested in or having to do with the details of anatomy of this widely used mammal and is naturally decidedly applicable to the study of anatomy of other small animals.

Études neurologiques. Par Georges Guillain, professeur de clinique des maladies du système nerveux à la Faculté de médecine de Paris. Sixième série. Boards. Price, 80 francs. Pp. 433, with 108 illustrations. Paris: Masson & Cie, 1935.

This book is the sixth of a series written by Guillain on neurologic studies. He has written in addition five other books on neurologic subjects. All the material of this edition was studied and worked up in the clinic at the Salpêtrière. There are seven chapters. The first is on cerebral tumors and is subdivided into thirteen parts. In this chapter the author discusses tumors in almost every part of the brain. The second chapter deals with pathology of the brain and describes in detail four conditions: astereognosis and trauma to the parietal cortex, atrophic necrosis of the parietal and occipital convolutions, astereognosis (bilateral), and Claude Bernard-Horner syndrome in a case of thalamic syndrome. The third chapter deals with pathologic changes in the cerebral peduncles, pons, medulla oblongata and cerebellum. The fourth chapter is on pathologic conditions in the spinal cord and contains nine subdivisions. The fifth chapter contains a study of certain paralyses of the external popliteal nerve, meralgia paresthetica and a study of the spinal fluid Lange test in diphtheritic paralysis. The sixth chapter consists of a study of the course in myotonia atrophica. The seventh chapter pleads for the necessity of more scientific research for the further progress of neuropsychiatry. This is an excellent textbook for neuropsychiatrists and neuropathologists.

An Index of Differential Diagnosis of Main Symptoms. By Various Writers. Edited by Herbert French, C.V.O., C.B.E., M.D., Consulting Physician to Guy's Hospital. Fifth edition. Leather. Price, $16. Pp. 1145, with 742 illustrations. Baltimore: William Wood & Company, 1936.

An essential feature of this book is the index, which comprises about 319 pages and has been prepared with meticulous care, so as to include numerous subjects and questions that might arise in making a differential diagnosis. These references in the index, of course, refer to the reading pages in the front of the book, in which the particular symptom or physical sign is discussed with relation to the diseases that may cause it. Another notable feature of the book is the large number of well selected illustrations, of which 196 are colored. Among the nineteen English contributors to the preparation of the book are some names that are well known throughout the civilized world. This book would seem to be especially useful to physicians who are removed from medical libraries or the larger hospitals and who may find themselves with some obscure condition to diagnose. The previous edition of the book was reviewed in THE JOURNAL, Jan. 19, 1929. The present edition has been made necessary by the many new diagnostic tests devised since the previous edition was published, by the improvement in the technic of established methods of diagnosis and by the fact that in those few years such diseases as tularemia and psittacosis have become more common. The original purpose of the book was to help in making a correct diagnosis in a case in which one or more symptoms are pronounced and yet the real nature of the disease is not clear. That it serves the purpose well is indicated by the fact that some 53,000 copies of the book have been printed since 1912.

The Bacteriological Grading of Milk. By G. S. Wilson, Assisted by R. S. Twigg, R. C. Wright, C. B. Hendry, M. P. Cowell and I. Maier. Medical Research Council, Special Report Series, No. 206. Boards. Price, 7s. 6d. Pp. 392, with 29 illustrations. London: His Majesty's Stationery Office, 1935.

Bacteriologists, public health officers and others will be interested in this report. It is the result of a comprehensive laboratory investigation on bacteriologic methods for testing and grading milk. The authors were concerned chiefly with providing data for conclusions as to the relative value of current testing methods. They collected considerable evidence which shows—what most American workers are thoroughly cognizant of—that the plate count is subject to considerable experimental error. According to the data presented, an allowance of plus or minus 90 per cent or more may have to be made for any one count. In addition to being inaccurate, the plate count method is complex, expensive and, owing to the practice of

recording insignificant figures, gives a false sense of accuracy. The authors recommend that it be abandoned in the routine examination of raw milks. Other methods of testing milk were examined. The coliform test was judged inadequate. As a simple, inexpensive procedure by which the grading in terms of the content of living bacteria can be reliably performed, a modified methylene blue test is recommended. It is claimed to have only 5 per cent of the variability found with the plate count test. The modification essentially consists of the use of rubber stoppered tubes for the milk and standard methylene blue solution, in place of tubes with cotton plugs. This permits inversion of the tubes at intervals of half an hour. Before being inverted they are examined and the end point is taken when the milk is completely decolorized or decolorized up to within 5 mm. of the surface. The investigators found that the modified technic resulted in a marked diminution in the reduction time of good grades of milk and gave an end point that was easily read.

Comparison of the plate count and modified methylene blue reduction test was made on a large series of different grades of milk. Standards are suggested for grade A and certified milks. The authors point out that only two divisions need be made on the basis of cleanliness; namely, milk that is suitable and milk that is not suitable for human consumption. Laboratory workers may find this volume of additional interest because of the detailed description of technic and the statistical treatment of experimental observations.

The Hospital Yearbook: A Reference Book on Planning, Equipment, Administration and Purchasing. Fourteenth edition. Cloth. Price, $2.50. Pp. 505. Chicago: Modern Hospital Publishing Company, Inc., 1935.

Those who are familiar with this annual publication will find this edition more complete than any previous issue. It is a book of reference for hospital executives. Aside from the condensed and yet comprehensive helps in hospital buying, it covers many features in hospital organization and administration. Several pages are devoted to the purchase of equipment and supplies, covering adequately almost every department. The chapter on organization analyzes the division of work, the jobs and the qualifications of the personnel required for each position. Among the other chapters may be mentioned those on qualifications of the administrator, functions of a women's auxiliary, serving the patient, hospital accidents, budgets, accounting, insurance, decoration and furnishing and food service. The chapter on minimum hospital standards is a collection of the official standards issued by medical organizations, starting with the American College of Surgeons and the American Medical Association and including the requirements of other organizations of standing having to do with the operation of hospitals or parts of hospitals and ending with a comprehensive list of hospital and medical associations. The final chapter is a glossary of hospital terms.

Semiología radiológica de la aurícula izquierda. Por Oscar F. Noguera, medico del servicio central de radiologia del Hospital Alvarez. Boards. Pp. 87, with 48 illustrations. Buenos Aires: Agencia medica sud-americana, 1935.

The x-rays afford the only means of observing individually the different chambers of the heart and their changes of form and situation and of delineating the different compartments of the heart whatever may be their situation. Borderline cases of difficult diagnosis necessitate the most exact methods, which are correlated with other measurements of the body, such as the procedure of Fray in the left anterior oblique position for the determination of the increase in size of the left and the right ventricle. Verification of the total size in cases of definite cardiac enlargement is of secondary importance. The most important determination is whether the chambers of the heart are hypertrophic or dilated. For this purpose one may have recourse to careful x-ray study in different positions, based on known landmarks, such as the clear retrocardiac space, the angle of bronchial divergence and the esophagus. The radiologic study of the left auricle is of special importance because, in addition to its great clinical interest, it permits recognition of even slight increase in size, a thing that is not possible with other cavities of the heart. The high percentage of cases in which disturbances of the mitral valve figure make even more important the use of the x-rays. The book is divided into the essentials of topographic anatomy of the left auricle, the radiologic study of the normal left auricle, the mitral configuration of the heart, increase of size of the left auricle, visualization of the esophagus, the angle of divergence and the right bronchovertebral angle, pulmonary venous stasis, radiologic aspects of auricular fibrillation, the left auricle as a mediastinal tumor, and determination of ventricular hypertrophy by the procedure of Fray.

Surgery: Queen of the Arts and Other Papers and Addresses. By William D. Haggard, M.D., F.A.C.S., D.C.L., Professor of Clinical Surgery, Vanderbilt University School of Medicine, Nashville, Tennessee. Foreword by William J. Mayo. Cloth. Price, $5.50. Pp. 389, with 41 illustrations. Philadelphia and London: W. B. Saunders Company, 1935.

This book is a compilation of some thirty addresses selected from a hundred and fifty delivered by the author before various medical and surgical societies in this country, of many of which he has been the president. The scope of the volume is broad. It includes, in addition to sketches of historical development, discussions of the achievements of some of the pioneers in American medicine, eulogies of medical men and surgeons whose names are now famous, lectures on the ideals of medicine as a whole, and a number of scientific papers and clinics on subjects with which the author has become familiar through years of active hospital and private practice. As the addresses were prepared for special occasions, they naturally reflect the mood suitable for the specific purpose. They are sincere, forceful and full of knowledge, wisdom and philosophy, clearly and at times beautifully expressed. Above all they are inspirational and worth reading.

Chirurgie de l'oreille, du nez, du pharynx et du larynx. Par Georges Laurens. Avec la collaboration de Maurice Aubry, laryngologiste des hôpitaux de Paris. Third edition. Cloth. Price, 150 francs. Pp. 1,075, with 794 illustrations. Paris: Masson & Cie, 1936.

This is the third completely revised edition of the well known work by Georges Laurens, with the collaboration of Maurice Aubry. After some general statements regarding the operative preparation, anesthesia and hemostasis, the actual surgery of the ear, nose, pharynx, larynx and esophagus is detailed in seven parts, each of which is again subdivided into many chapters. The whole subject has been brought to date, the newer procedures having been incorporated in this new edition. In each instance the various steps in the different operations are given in sequence, and usually with illustrations showing clearly the complete technic. The work is almost encyclopedic in character, is well organized, is written clearly, is profusely illustrated and is most informative. As a text and reference work it will prove of inestimable value to all who are able to read French. But even to those who are not masters of this language, much information might be obtained by simply studying the illustrations, particularly those showing the various steps of the mastoid and laryngeal operations. Without doubt, this volume is a valuable addition to the literature of operative otolaryngology.

Typebestemmelse ved retsmedicinske pletundersøgelser. Af Frederik Therkelsen. [Type Determination in Medicolegal Examination of Stains.] Paper. Pp. 158, with 34 illustrations. Copenhagen: Levin & Munksgaard, 1935.

This thesis, submitted for the doctor's degree at the University of Copenhagen, deals with the methods and value of determining the group-specific elements in spots and stains of human blood and semen as well as saliva. From extensive and thorough experimental tests under a great variety of conditions the author has developed efficient methods for the determination of the group-specific substances in such materials. In twenty-four of forty-six examinations in actual instances the type of the blood or seminal spot was determined satisfactorily and in several cases the information thus obtained proved to be of practical medicolegal value. The main results of the extensive investigations, which will interest all who are concerned with type diagnosis for medicolegal purposes, are summarized in German at the end of the dissertation. There can be no question of the desirability of making type determination of stains and spots a regular part of medicolegal laboratory work.

Bureau of Legal Medicine and Legislation

MEDICOLEGAL ABSTRACTS

Accident Insurance: Epidemic Encephalitis as Totally Disabling a Physician.—The Massachusetts Accident Company promised to pay certain weekly benefits to the plaintiff, a physician, if he should suffer a disability from accidental injury or disease which necessarily, wholly and continuously disabled him from the performance of any and every kind of duty pertaining to his occupation. The physician developed epidemic encephalitis, an inflammatory disease of the brain, with Parkinson's syndrome. He had a disturbance of his gait characterized by walking with short steps in a shuffling manner with a propulsion tendency to fall forward. In walking, he held his arms rigidly to his side. He had a marked tremor which involved to some degree his entire body, but more particularly the left arm and leg, the head and tongue. His speech was slurry and indistinct. There was impairment of fine movements as characterized by difficulty in picking up a pin. There was definite impairment of coordinated movements. He had uncontrollable spasms of the eyelids with an associated rolling upward of the eyeballs. There was considerable rigidity of the left arm and leg. At times he had attacks of laughing or crying, which occurred without sufficient provocation. The insurance company paid the specified weekly benefits from June 1933 to Feb. 5, 1935, but thereafter stopped further payments. The physician then sued the company for the unpaid benefits, and from a judgment of the trial court for the plaintiff the company appealed to the Supreme Court of New Jersey.

The plaintiff, prior to his disablement, had a large general and obstetric practice, treating approximately 140 patients a week. He was also a surgeon. A neurologist testified: "My opinion is that he (plaintiff) is totally incapacitated from carrying on professionally both as a physician and as a surgeon." The company contended that the plaintiff was not totally disabled within the terms of the policy during the period for which benefits were not paid because he had treated some seven patients, gave a hypodermic injection to one patient, wrote about fourteen prescriptions and kept up his offices, which were in his home. The plaintiff admitted that he had treated about four patients a day during that period, but treated only those patients, he said, "which I could handle very easily." The language of an insurance policy, said the Supreme Court, must be construed in a manner most advantageous to the insured without doing violence to the wording. The meaning of the language "any and every kind of duty pertaining to his occupation or business" is "not that he [assured] must be so disabled as to prevent him from doing anything whatsoever pertaining to his occupation, but that, if he be so disabled as to prevent him from doing any and every kind of business pertaining to his occupation, he was entitled to recover." *Gross* v. *Comm. Cas. Ins. Co. of Newark, N. J.*, 90 N. J. Law, 594, 101 A. 169. From the evidence in the present case, the court could find no reason for disturbing the judgment of the trial court for the plaintiff.—*Teitelbaum v. Massachusetts Accident Co. (N. J.), 181 A. 395.*

Accident Insurance: Septicemia Following Picking of Intranasal Pimple.—The defendant insurance company insured the deceased against "loss or disability resulting directly, independently and exclusively of all other causes, from bodily injuries effected solely through accidental means." The insured opened a pimple or boil within his nose, with a knife or needle. Inflammation set in at or near the puncture, septicemia followed and the insured died. At the trial of a suit brought by the beneficiary under the policy, there was preponderating evidence to show (1) that the death was produced by staphylococci which were originally confined in the boil or pimple but which, as a result of the insured's act, entered the blood stream, and (2) that it was not usual for septicemia to follow the puncturing or bruising of a boil or pimple. Judgment was entered for the beneficiary, and the insurance company appealed to the Supreme Court of Appeals of Virginia.

The question to be determined, said the Supreme Court of Appeals, is whether or not the injuries resulting in the insured's death were effected by accidental means and fall within the coverage clause of the policy. We think, said the court, that the jury's verdict was based on competent evidence and is conclusive that the insured's death was not the natural or probable consequence of his puncturing the boil or pimple but came about unexpectedly and by chance. There is no proof that he knew that such an act would produce such dire consequences. The court affirmed the judgment for the beneficiary. —*Ocean Accident & Guarantee Corporation v. Glover (Va.), 182 S. E. 221.*

Malpractice: Choice of Methods of Treatment.—The patient in this case consulted the defendant, a dentist, for treatment of an abscessed tooth, which the dentist extracted. The infection became generalized and the patient died. The plaintiff, as administratrix of the patient's estate, sued the dentist and, from a directed verdict against her, she appealed to the Supreme Judicial Court of Massachusetts.

The dentist testified that two methods of treatment were available to him, a palliative one to reduce the inflammation before extracting, and immediate extraction. The former method, he testified, was the usual practice in 1921 when he commenced his practice but since that time the latter method had become recognized as good practice. There was danger in the adoption of either method, he said. There was no evidence of negligence, in the opinion of the Supreme Judicial Court, unless the dentist's decision to extract the infected tooth constituted negligence. Apparently holding that this did not constitute negligence, the court upheld the trial court in directing a verdict for the dentist.—*Carlen v. Gaw (Mass.), 198 N. E. 606.*

Society Proceedings

COMING MEETINGS

American Association for the Study of Goiter, Chicago, June 8-10. Dr. W. Blair Mosser, 133 Biddle St., Kane, Pa., Corresponding Secretary.

American Association for the Study of Neoplastic Diseases, Baltimore, June 11-13. Dr. Eugene R. Whitmore, 2139 Wyoming Ave. N.W., Washington, D. C., Secretary.

American Bronchoscopic Society, Detroit, May 27. Dr. Lyman Richards, 319 Longwood Ave., Boston, Secretary.

American Dermatological Association, Swampscott, Mass., June 4-6. Dr. Fred D. Weidman, Medical Laboratories, University of Pennsylvania, Philadelphia, Secretary.

American Gynecological Society, Absecon, N. J., May 25-27. Dr. Otto H. Schwarz, 630 S. Kingshighway Blvd., St. Louis, Secretary.

American Laryngological Association, Detroit, May 25-27. Dr. James A. Babbitt, 1912 Spruce St., Philadelphia, Secretary.

American Neurological Association, Atlantic City, N. J., June 1-3. Dr. Henry A. Riley, 117 East 72d St., New York, Secretary.

American Ophthalmological Society, Hot Springs, Va., June 1-3. Dr. J. Milton Griscom, 255 South 17th St., Philadelphia, Secretary.

American Otological Society, Detroit, May 28-29. Dr. Thomas J. Harris, 104 E. 40th St., New York, Secretary.

American Pediatric Society, Bolton Landing, N. Y., June 11-13. Dr. Hugh McCulloch, 325 North Euclid Ave., St. Louis, Secretary.

American Physiotherapy Association, Los Angeles, June 28-July 2. Miss Jefferson I. Brown, Tichenor Hospital School, Long Beach, Calif., Secretary.

American Society for the Hard of Hearing, Boston, May 26-30. Miss Betty C. Wright, 1537 35th St. N.W., Washington, D. C., Secretary.

California Medical Association, Coronado, May 25-28. Dr. F. C. Warnshuis, 450 Sutter St., San Francisco, Secretary.

Conference of State and Provincial Health Authorities of North America, Vancouver, B. C., June 22-23. Dr. A. J. Chesley, State Department of Health, St. Paul, Minn., Secretary.

Maine Medical Association, Rangeley, June 21-23. Miss Rebekah Gardner, 22 Arsenal St., Portland, Secretary.

Massachusetts Medical Society, Springfield, June 8-10. Dr. Alexander S. Begg, 8 The Fenway, Boston, Secretary.

Medical Library Association, St. Paul, June 22-24. Miss Janet Doe, 2 E. 103d St., New York, Secretary.

Montana, Medical Association of, Billings, July 8-9. Dr. E. G. Balsam, 208½ North Broadway, Billings, Secretary.

New Hampshire Medical Society, Manchester, May 26-27. Dr. Carleton R. Metcalf, 5 S. State St., Concord, Secretary.

New Jersey, Medical Society of, Atlantic City, June 2-4. Dr. J. B. Morrison, 66 Milford Ave., Newark, Secretary.

Pacific Northwest Medical Association, Portland, Ore., July 7-10. Dr. C. W. Countryman, 407 Riverside Avenue, Spokane, Wash., Executive Secretary.

Rhode Island Medical Society, Providence, June 3-4. Dr. J. W. Leech, 167 Angell St., Providence, Secretary.

Society of Surgeons of New Jersey, Orange, May 27. Dr. Walter B. Mount, 21 Plymouth St., Montclair, Secretary.

Texas, State Medical Association of, Houston, May 25-28. Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth, Secretary.

West Virginia State Medical Association, Fairmont, June 8-10. Mr. Joe W. Savage, Public Library Bldg., Charleston, Executive Secretary.

Current Medical Literature

AMERICAN

The Association library lends periodicals to Fellows of the Association and to individual subscribers to THE JOURNAL in continental United States and Canada for a period of three days. Periodicals are available from 1926 to date. Requests for issues of earlier date cannot be filled. Requests should be accompanied by stamps to cover postage (6 cents if one and 12 cents if two periodicals are requested). Periodicals published by the American Medical Association are not available for lending but may be supplied on purchase order. Reprints as a rule are the property of authors and can be obtained for permanent possession only from them.

Titles marked with an asterisk (*) are abstracted below.

American Journal of Cancer, New York

26: 483-702 (March) 1936

*Intrathoracic Sympathoblastoma Producing Symptomatology of a Superior Pulmonary Sulcus Tumor (Pancoast). T. T. Frost and S. E. Wolpaw, Cleveland.—p. 483.

*Study of Fifty-Seven Cases of Bronchogenic Carcinoma. R. S. Rosedale and D. R. McKay, Buffalo.—p. 493.

Carcinoma of Urinary Bladder: Evaluation of Surgery and Irradiation in Treatment of This Disease. J. R. Andrews and C. A. W. Uhle, Philadelphia.—p. 507.

Clinical Experiments on Effect of African Snake Venoms on Human Cancer Cases With or Without Concomitant Deep Therapy. M. des Ligneris and E. Grasset, Johannesburg, South Africa.—p. 512.

Isolation of Pure Strains of Cells from Human Tumors: I. Selection of Specimens and Technic. H. Pinkus, Ann Arbor, Mich.—p. 521.

Value of Macronucleolus in the Cancer Problem. W. C. MacCarty, Rochester, Minn.—p. 529.

Is There a Seasonal Factor Influencing Development of Tar Tumors in Mice? L. Kreyberg and S. S. Nielsen, Oslo, Norway.—p. 533.

Observation of Primary Tumors of Pituitary, Ovaries and Mammary Glands in a Mouse. W. U. Gardner, L. C. Strong and G. M. Smith, New Haven, Conn.—p. 541.

Relation of Hypophysis to Growth of Malignant Tumors: III. Effect of Hypophysectomy on Autogenous Tumors. H. A. Ball, San Diego, Calif., and L. T. Samuels, Los Angeles.—p. 547.

Development of Multiple Tumors in Mice: Part III: Results of Ingestion of Carcinogenic Agents: Preliminary Report. M. C. Reinhard and C. F. Candee, Buffalo.—p. 552.

Reaction of Spontaneous Mouse Tumors to Cystine Disulfoxide. By the Staff of the Lankenau Hospital Research Institute, Philadelphia.—p. 554.

Intra-Uterine Fibrosarcoma of the Foot: Case Report. O. C. Hudson, Mineola, N. Y.—p. 568.

Adenoma of Parotid Salivary Gland: Onkocyte Tumor. G. E. Gruenfeld and L. H. Jorstad, St. Louis.—p. 571.

Thymoma in Chicken (Gallus Domesticus). W. H. Feldman, Rochester, Minn.—p. 576.

Absorption of X-Rays by Sperm and Erythrocytes and Its Relation to Susceptibility of Tissues to X-Rays. A. Marshak and V. L. Bollman, Pasadena, Calif.—p. 581.

Tumors of Oral Mucous Membrane. C. F. Geschickter, Baltimore.—p. 586.

Relation of the Internist to the Cancer Problem. J. M. Swan, Rochester, N. Y.—p. 608.

Intrathoracic Sympathoblastoma.—Because of the unusual type of tumor, Frost and Wolpaw add a case to the group of cases of superior pulmonary sulcus tumor presenting the clinical features enumerated by Pancoast. Consideration of the gross features of the tumor leads them to presume that the tumor arose external to the lung and extended into it. The tumor in this case fulfils the criteria for a tumor arising from the sympathetic nervous system, and the degree of differentiation justifies the diagnosis of sympathoblastoma. It is thought to have arisen from the inferior cervical sympathetic ganglion. No tumors described in the literature have the exact histologic characters of this tumor, because they have occurred in purer form, the sympathogonioma, the sympathoblastoma, the pheochromocytoma and the ganglioneuroma. The situation near the neck is that next in order of frequency to the adrenal. The moderate degree of malignancy is in harmony with the approach to the more mature type of cell. Horner's syndrome and invasion of the brachial plexus with arm pain and muscular weakness were both present. A small, dense, homogeneous mass was found at the right apex. Although the available roentgenograms showed no destruction of ribs or spine, their involvement was revealed at necropsy. The necropsy material in the literature is reviewed and indicates that the clinical syndrome which has been described under the name of superior pulmonary sulcus tumor cannot be attributed to a specific pathologic entity but may be caused by various tumors arising near the thoracic inlet.

Bronchogenic Carcinoma.—Rosedale and McKay declare that in the last ten years 466 cases of malignant disease were examined post mortem at the Buffalo City Hospital, of which bronchogenic carcinoma constituted 7.5 per cent. In their district the tumor appears to predominate in people employed in irritating atmospheric conditions. Histologically the tumors consisted of various predominant cell types. Round or spindle cells were found in all cases. The regional lymph nodes were involved in all cases. Clinically the symptoms produced by these tumors closely simulate other diseases of the lungs, such as tuberculosis, pneumoconiosis and bronchiectasis. Roentgenographic study may be of aid in differentiating between the several diseases simulating tumor; but in the presence of secondary pulmonary or pleural pathologic conditions the diagnosis may not be suspected. Bronchoscopy with removal of tissue for microscopic examination is a most valuable procedure. The authors feel, from the study of their material, that bronchogenic carcinoma occurs frequently enough for it to enter the differential diagnosis of all obscure diseases of the chest in persons more than 30 years of age.

American J. Digestive Diseases and Nutrition, Chicago

3: 1-82 (March) 1936

Personality Study in Cardiospasm: The Meaning of the Disorder from the Standpoint of Behavior. E. Weiss, Philadelphia.—p. 1.

Epigastric Percussion in Peptic Ulcer. J. Meyer and J. S. Golden, Chicago.—p. 6.

Anemia Following Gastric Operations. H. Lublin, Stockholm, Sweden.—p. 8.

Incidence of Malignancy in Gastric Ulcer. H.-C. Chang, Peiping, China.—p. 10.

The Double Histamine Test as an Aid in Study of Gastric Secretory Function. A. B. Rivers, A. E. Osterberg and Frances R. Vanzant, Rochester, Minn.—p. 12.

Phytobezoar with Visualization by Means of Gastroscopy. H. J. Moersch and W. Walters, Rochester, Minn.—p. 15.

Functional Abdominal Distention Simulating Megacolon. J. A. Bargen, A. W. Adson, J. S. Lundy and C. F. Dixon, Rochester, Minn.—p. 17.

*Pyogenic Skin Lesions Accompanying Chronic Ulcerative Colitis: Report of Five Cases. I. R. Jankelson and B. F. Massell, Boston.—p. 19.

Is Phenolphthalein Harmful? Z. v. Vamossy, Budapest, Hungary.—p. 22.

Prophylactic Value of Gastric Mucin in Therapy of Postoperative Jejunal Ulcer: Experimental Study in Dogs. J. R. Orndorff, G. B. Fauley and A. C. Ivy, Chicago.—p. 26.

Studies of Pepsin in Human Gastric Juice: III. Physiologic Aspects. A. E. Osterberg, Frances R. Vanzant, W. C. Alvarez and A. B. Rivers, Rochester, Minn.—p. 35.

*Permeability to Egg Albumin in Peptic Ulcer: Possible Test for Activity of Peptic Ulcers: Preliminary Report. M. B. Marks, Chicago.—p. 41.

Influence of Fruit Ingestion Before Meals on Bacterial Flora of Stomach and Large Intestine and on Food Allergins. O. Bergeim, A. Hanszen and L. Arnold, Chicago.—p. 45.

Newer Interpretations of Gallbladder Function and Their Diagnostic and Therapeutic Application. M. Feldman and S. Morrison, Baltimore.—p. 52.

Clinical Results in Medical Treatment of Chronic Ulcerative Colitis. E. D. Kiefer, Boston.—p. 56.

Review of Seven Hundred and Forty-Six Gastric and Duodenal Ulcers. J. W. Hinton, New York.—p. 59.

Electrocholecystocausis: Preliminary Report. L. R. Whitaker, Boston.—p. 62.

Technic of the Local Injection of Saline Solution for Relief of Pruritus Ani. W. J. Schatz and V. Sprenkel, Allentown, Pa.—p. 63.

Pyogenic Skin Lesions in Chronic Ulcerative Colitis.—Jankelson and Massell have seen five patients who, in the course of ulcerative colitis, developed ulcerations of the skin. This complication, though uncommon, is often difficult to control. In one of these cases it was directly responsible for death. The five cases have much in common. All occurred in chronic idiopathic ulcerative colitis during the height of an acute exacerbation. All presented a febrile reaction, toxicity and diarrhea with watery stools containing mucus, blood and pus. The two patients who had an ileostomy showed mucopurulent-sanguineous rectal discharges. In none of these cases could either Bargen's organism or Endamoeba histolytica be isolated. Bacillary dysentery was excluded by negative cultures and specific agglutination tests. Cultures of smears taken from the base of the ulcers in the sigmoid in three cases yielded various organisms. The organisms were Staphylococcus aureus, Staphylococcus albus and the hemolytic streptococcus either separately or together, but there is no evidence as to whether these were the primary cause of the lesions or secondary invaders. In two of three cases the same organisms were found in the skin lesions as in the ulcers of the intestinal mucosa. This suggests the possibility of a metastatic origin of the skin infection. A lowered resistance to infection seems

to play an important part in the etiology of these skin ulcerations, whether caused by organisms that get into the skin by direct invasion or carried there by the blood stream from the diseased colon. In instances in which recovery took place, improvement in the skin ulcerations accompanied improvement of the general condition of the patient. The cutaneous lesions varied in severity. In some cases they were merely punched out ulcerations or redness, swelling and induration without abscess formation; in other cases there were multiple distinct abscesses. The amount of colon involved does not seem to bear any relation to the severity of the cutaneous infection. The early lesions often resemble toxic diseases of the skin. Their course, however, is not typical and in most cases pyogenic infection occurs. The treatment of the pyogenic infections of the skin in the course of an ulcerative colitis is largely symptomatic: incision and drainage of single abscesses, heat—dry or moist—in the punched-out ulcerations. In the one case in which autogenous vaccine was tried, the results were apparently excellent. Whatever management will cause a remission of the chronic ulcerative colitis will contribute to the healing of the pyogenic infection of the skin.

Permeability to Egg Albumin in Peptic Ulcer.—Marks declares that individuals without gross lesions in the mucosa of the upper portions of the alimentary tract do not give the egg white precipitin test in the urine, excepting in 20 per cent of cases that might possibly be considered to have given a false positive result. Patients with active peptic ulcers, whether located in the stomach or the duodenum, have yielded the precipitin reaction in 75 per cent of the cases. This might be considered to introduce a possibility of a 25 per cent false negative reaction. All but 20 per cent of patients with healed peptic ulcer gave a negative reaction. In spite of the possibility of false positive and false negative reactions in a certain proportion of cases, it seems that the test may be of value as corroborative evidence of the probable presence or absence of active peptic ulcer or other lesions of the mucous membrane in the upper portion of the digestive tract, and in differentiation from gallbladder and other diseases producing similar clinical pictures.

American Journal of Diseases of Children, Chicago

51: 499-764 (March) 1936

Letterer-Siwe's Disease: Splenohepatomegaly Associated with Widespread Hyperplasia of Nonlipoid-Storing Macrophages: Discussion of So-Called Reticulo-Endothelioses. A. F. Abt and E. J. Denenholz, Chicago.—p. 499.

*Changes in Lung Volume During Treatment with Artificial Pneumothorax for Lobar Pneumonia: Report of Three Cases. G. E. Lindskog, P. Harper and I. Friedman, New Haven, Conn.—p. 523.

Treatment of Lobar Pneumonia in Children by Artificial Pneumothorax. P. Harper, Bridgeport, Conn.—p. 536.

Immune Reactions Induced in Infants by Intestinal Absorption of Incompletely Digested Cow's Milk Protein. V. W. Lippard, O. M. Schloss and Priscilla A. Johnson, New York.—p. 562.

Mental Deterioration Associated with Convulsions and Hypoglycemia: Report of Two Cases. D. C. Darrow, New Haven, Conn.—p. 575.

*Changes in Rate of Human Fetal Heart in Response to Vibratory Stimuli. L. W. Sontag and R. F. Wallace, Yellow Springs, Ohio.—p. 583.

Substances Involved in Coagulation of Blood of the New-Born: V. Prothrombin: Quantitative and Qualitative Studies of Platelets in Normal Infant. Eleanor I. Leslie, Evanston, Ill., and H. N. Sanford, Chicago.—p. 590.

Further Studies of Viosterol in Prophylaxis of Rickets in Premature Infants. L. T. Davidson and Katharine K. Merritt, New York, and S. S. Chipman, Norwalk, Conn.—p. 594.

Lung Volume During Treatment with Artificial Pneumothorax for Pneumonia.—Lindskog and his co-workers observed the volume of the lungs in its component parts in three cases. A comparison of the initial determinations of the subtidal volume of the lungs and the final values recorded during the convalescence indicates that the subtidal volume is considerably reduced during the early stages of lobar pneumonia. In case 1, although the initial roentgenogram showed little evidence of infiltration, the reduction in subtidal volume was 20 per cent. There was also a significant reduction in the mean tidal exchange, this being in association with an accelerated respiratory rate. The introduction of measured amounts of air into one pleural space was followed by a decrease in the subtidal volume of the lungs, but less quantitatively than the volume of air introduced. Likewise the withdrawal of air in measured quantities from an existing pneumothorax caused a rise in the subtidal volume, but less than the amount of air withdrawn. When large volumes of air are introduced into the pleural cavity, there is an increase in the size of the chest, which can be demonstrated physically and by roentgen measurements. There is also a drop in the level of the diaphragm toward the inspiratory position. Shifts in the mediastinum and pleural adhesions may be complicating factors. A redistribution of the volume of blood in the pulmonary fields and the large venous reservoirs of the mediastinum must likewise be considered. The physiologic adjustments following the introduction of large volumes of air into the thorax act in a direction to preserve a subtidal (functional residual) volume sufficient to the needs of the patient at the expense of the complemental air, which is drastically reduced.

Changes in Rate of Fetal Heart.—Sontag and Wallace made 217 experiments between one day and 127 days before delivery on eight pregnant women; there was an average increase of 11.2 ± 0.47 beats per minute in the fetal heart rate following the application to the mother's abdomen of vibratory stimuli of a frequency of 120 beats per second. This change in heart rate was distributed according to months. It was increased from an unreliable decrease of 0.07 ± 1.52 beats per minute during the fifth month before birth to an average increase of 14.3 ± 0.74 beats per minute during the last month before birth. This increase was greater than the increase due to fetal movement. There were two cases, representing seventy-nine experiments, in which no movement response to the stimulus occurred, but in which a reliable increase in heart rate did occur. There is a total of fifty-seven experiments in which no movement occurred during the first minute following stimulation. The fetal heart rate underwent an average increase of 6 ± 1.11 beats per minute. This response may prove of value as an index of intra-uterine development.

American Journal of Hygiene, Baltimore

23: 205-430 (March) 1936

Relation of Physical Defects to Physical Growth of Children in Different Geographic Regions of the United States: Physical Measurement Studies Number Four. W. M. Gafafer.—p. 205.

Incidence and Distribution of Ascaris Lumbricoides, Trichuris Trichiura, Hymenolepis Nana and Hymenolepis Diminuta in Thirty-Six Counties in Kentucky. A. E. Keller and W. S. Leathers, Nashville, Tenn.—p. 216.

Preservation of Bacteria by Drying in Vacuo. E. Leifson, Baltimore.—p. 231.

Resistance of Rats to Infection with Nippostrongylus Muris Following Administration of Worms by Duodenal Tube. L. A. Spindler, Washington, D. C.—p. 237.

Experimental Studies on Human and Primate Species of Strongyloides: V. Free Living Phase of Life Cycle. T. de V. Beach, New Orleans.—p. 243.

Relationship Between Viruses of Infectious Myxoma and Shope Fibroma of Rabbits. K. E. Hyde, Baltimore.—p. 278.

Decline of Malaria in Region of East Macedonia Owing to Diminished Rainfall. M. A. Barber; J. B. Rice, Paris, France, and V. G. Valaoras.—p. 298.

Experimental Immunity to Virus of Mumps in Monkeys. C. D. Johnson and E. W. Goodpasture, Nashville, Tenn.—p. 329.

Synchronicity, Periodicity and Length of Asexual Cycle of Plasmodium Rouxi in the Canary. Fruma Wolfson.—p. 340.

Studies on Schistosome Dermatitis: I. Present Status of Subject. W. W. Cort, Baltimore.—p. 349.

Id.: II. Morphologic and Life History Studies on Three Dermatitis Producing Schistosome Cercariae, C. Elvae Miller, 1923, C. Stagnicolae N. Sp., and C. Physellae N. Sp. S. B. Talbot.—p. 372.

Id.: III. Observations on Behavior of Dermatitis-Producing Schistosome Cercariae. W. W. Cort, Baltimore, and S. B. Talbot.—p. 385.

Laboratory Diagnosis in Trichinosis. Lucy S. Heathman, Minneapolis.—p. 397.

*Experimental Infections of Rats with Endamoeba Histolytica. F. O. Atchley, Baltimore.—p. 410.

Effect of Fresh Implants of Hypophysis and of Certain Extracts from Its Anterior Lobe on Walker's Rat Carcinoma Number 256. R. E. Gardner, Baltimore.—p. 415.

Immunity to Virus Myxomatosis as Affected by Port of Entry. R. R. Hyde, Baltimore.—p. 425.

Experimental Infections with Endamoeba Histolytica.—Atchley inoculated strains of Endamoeba histolytica by mouth from the wild rat and from man into laboratory rats. Almost 50 per cent of the inoculations of wild rat material were successful, eight of seventeen rats being positive later. Only 13 per cent (four of thirty) of the rodents given the ameba from human carriers became infected. Cysts (human material) were observed in only one experimental animal and then at examination one month following inoculation. As a result of repeated attempts to infect twelve young wild rats

raised in the laboratory, one light infection was obtained. One very light colonization was observed subsequent to attempts to inoculate six laboratory rats intracecally with Endamoeba histolytica trophozoites from cultures. No symptoms and no pathologic changes were observed in any case, either in four naturally infected wild rats (tissue sections) or during the experimental work. Of six kittens inoculated with the ameba from the wild rat, two became positive, although Endamoeba histolytica was not demonstrated microscopically within the tissues.

American Journal of Medical Sciences, Philadelphia

191: 453-596 (April) 1936

*Effect of Liver Extract on Small Intestine of Patients with Sprue. D. K. Miller and C. P. Rhoads, New York.—p. 453.
Acute Basophilic Leukemia. W. A. Groat, T. C. Wyatt, Stella M. Zimmer and Rachael E. Field, Syracuse, N. Y.—p. 457.
Resistance of Reticulocytes to Hypotonic Solutions of Sodium Chloride and of Plasma. Geneva A. Daland and L. Zetzel, Boston.—p. 467.
*Sickle Cell Anemia: New Cause of Cor Pulmonale: Report of Two Cases with Numerous Disseminated Occlusions of Small Pulmonary Arteries. W. M. Yater and G. H. Hansmann, Washington, D. C.—p. 474.
Electrocardiogram in Fever: Changes in Induced Hyperpyrexia. H. Vesell and W. Bierman, New York.—p. 484.
Strength Duration Curves of Overexcitable and Underexcitable Nerve Muscle Apparatus and Some Consequences Bearing on Clinical Application of Chronaximetry. F. H. Lewy, Philadelphia.—p. 491.
*Is Use of Insulin Indicated in the Elderly Diabetic with Coronary Sclerosis? W. S. Collens, R. G. Stoliarsky and S. Netzer, Brooklyn.—p. 503.
Present Views of Calcium Phosphorus Metabolism. G. Wagoner, Philadelphia.—p. 511.
Observations on Etiologic Relationship of Vitamin B (B_1) to Polyneuritis in the Alcohol Addict. N. Jolliffe, C. N. Colbert and P. M. Joffe, New York.—p. 515.
Study of Diuretic Effect of Mercupurin in Man. A. C. DeGraff, J. E. Nadler and R. C. Batterman, New York.—p. 526.
Differentiation of Colored Cerebrospinal Fluids. F. H. Robinson and B. N. Miller, Durham, N. C.—p. 538.
Early Pulmonary Tuberculosis and Its Diagnosis. R. H. Stiehm, Madison, Wis.—p. 542.

Effect of Liver Extract on Intestine of Patients with Sprue.—Miller and Rhoads observed that flatulence, intestinal discomfort, cramps and diarrhea recurred in patients having had sprue unless a sufficiently large amount of liver extract was administered at frequent intervals. This was the case despite the fact that no detectable hematologic disturbance was present. Thus the intestinal dysfunction rather than the anemia has been the guide for the administration of therapy. The fact that the amount of liver extract necessary to prevent recurrence of intestinal dysfunction was far greater than that necessary to maintain normal blood levels suggested that a relationship existed between liver extract and intestinal activity. The results of the roentgenologic study of an individual case furnish unequivocal evidence of the specificity of liver extract therapy of the intestinal manifestations of sprue without anemia.

Sickle Cell Anemia as Cause of Cor Pulmonale.—Although many patients with sickle cell anemia die at a relatively early age of some intercurrent infection, particularly pneumonia and tuberculosis, some die apparently of the anemia itself. Yater and Hansmann believe that cardiac failure is often a part of the terminal picture. Their experience with two cases leads them to believe that there is something other than the severe anemia producing the cardiac failure; namely, hypertension of the lesser circulation due to numerous occlusions of the medium size and small pulmonary arteries with subsequent hypertrophy and failure of the right side of the heart. In one case the heart failure was acute and manifested by orthopnea, great enlargement of the liver and dilatation of the heart. In the other, heart failure was not suspected clinically because of absence of orthopnea, but the liver became greatly swollen. The cause of the right heart strain in the first case was thrombotic occlusions of the small and medium size arteries of the lungs, with organization and canalization of discrete thrombi, which had formed from time to time. The heart failure was apparently precipitated by a final crop of fresh thromboses. The cause of the right heart failure in the second case was thickening of the walls of the small and medium size arteries and the arterioles of the lungs with reduction in their lumens, but thromboses were not present in the tissue studied. Right heart failure due to vascular changes in the lungs must be common in cases of sickle cell anemia, since many of the patients have enlarged hearts, systolic murmurs and hepatomegaly. Capillary stasis due to distortion and agglutination of erythrocytes is probably the essential factor in the changes described in the small arteries. Changes in the nervous system are described in the first case, among which are the same lesions in the choroid plexus as are seen in the spleen in cases of advanced sickle cell anemia. The changes in the bone marrow differed from those previously reported in that they also were similar to those observed in the spleen.

Insulin and Diabetic Patients with Coronary Sclerosis.—The observations of Collens and his associates are not in accord with the clinical reports of Parsonnet and Hyman, who have indicated that anginal symptoms are frequently aggravated in the insulin-treated cases even when the blood sugars are normal. They feel that harm has been done by introducing the concept that insulin has a deleterious effect on the heart of the elderly diabetic patient. It is the hypoglycemic attack which is fraught with danger, but, if it is possible to obviate the toxic effect of this hormone, it should not be discarded as dangerous. Insulin is a double-edged sword: given in therapeutic doses it produces remarkable therapeutic effects; given in toxic doses it can even kill. Methods for adequately protecting patients against the toxic effects of insulin are presented. Insulin has been found to have a remarkable therapeutic value for the relief of cardiac pain of the diabetic patient. It would be of considerably greater importance to determine the sugar content of the blood three and four hours after insulin has been injected in order to decide whether the patient is hypoglycemic. It is the lack of this type of observation that has led to what the authors consider false conclusions.

American Journal of Pathology, Boston

12: 141-282 (March) 1936

Direct Bacteriologic Experimentation on Living Mammalian Fetus. O. C. Woolpert, Chicago.—p. 141.
Intracerebral Inoculation of Fetal Guinea-Pigs with Bacille Calmette-Guérin and the H_{37} Strain of Tubercle Bacillus. I. S. Neiman and O. C. Woolpert, Chicago.—p. 153.
Susceptibility of the Guinea-Pig Fetus to Vaccinia. J. Stritar and N. P. Hudson, Chicago.—p. 165.
Susceptibility of the Guinea-Pig Fetus to Submaxillary Gland Virus of Guinea-Pigs. F. S. Markham and N. P. Hudson, Chicago.—p. 175.
Pericardial Lesions in Rheumatic Fever. C. K. Friedberg and L. Gross, New York.—p. 183.
*Subclinical Adenoma of Pituitary Gland. R. T. Costello, Rochester, Minn.—p. 205.
Nuclear Alterations Following Intravenous Injections of Glucose and of Other Solutions. J. Lee, St. Louis.—p. 217.
Dermatomyositis: Report of Two Cases with Complete Autopsy. A. Wolf and S. L. Wilens, New York.—p. 235.
Spontaneous Leukemia and Chloroleukemia in the Rat. S. L. Wilens and E. E. Sproul, New York.—p. 249.
Mitral Stenosis with Interauricular Insufficiency. S. Sailer, New York.—p. 259.
*The Brains of Infants and Children in Relation to Postmortem Time, Toxicity and Convulsive State. C. R. Tuthill, Staten Island, N. Y.—p. 269.

Subclinical Adenoma of Pituitary Gland.—Costello bases his remarks on the study of 1,000 pituitary glands obtained over a period of years in the course of routine postmortem examinations. Of the glands examined, 225 were found to contain one or more adenomas. In 224 of these glands, excluding one with multiple adenomas, there were found to be 265 adenomas. These adenomas were classified as follows: chromophobic, 140; eosinophilic, twenty; basophilic, seventy-two, and mixed types, thirty-three. In an endeavor to find the age group in which adenomas occurred most frequently, the ages of subjects with adenomas were plotted against the age curve for the 1,000 subjects in the whole series. The youngest subject in whom adenomas were found was 2 years old; the oldest was 86 years old. The greatest incidence of adenomas occurred in the sixth decade of life. Of the 225 patients in whom adenomas were found, 148 were male and seventy-seven were female. Since the proportion of males to females in the 1,000 cases was 63 to 37 per cent, it can be seen that the incidence in the two sexes is about equal. The clinical diagnoses and causes of death in the 1,000 cases ranged through almost the entire list of medical and surgical conditions. In the 225 cases in which adenomas were found, the same variability in clinical observations and causes of death was apparent. There was nothing in the history or clinical observations in any case in which an adenoma was found to suggest the presence of any

pituitary dysfunction. This is startling, since in a few cases the adenomas were so large as almost to destroy the gland. Apparently, however, there was sufficient normal tissue remaining to sustain normal pituitary function. This would justify the term "subclinical adenoma" as applied to them. It is possible, however, that under the influence of an unknown stimulus some of these adenomas may secrete a hormone or similar substance capable of producing symptoms.

Study of Brains of Children.—Tuthill examined the brains of thirty-four children from 12 days to 4 years of age who died from the usual diseases of childhood. Brains from cases of acute infections, second degree burns, allergy and lead poisoning did not show changes in the ganglionic cells that could be attributed to toxicity. The loss of cytoplasm and the density of its stain, the tingeing of the nerve tissue, the hyperchromatosis of the nuclei and the perivascular spaces varied somewhat with age and the fixative, but chiefly with the postmortem time. The indications of toxic injury were found rather in the reactions of the microglia and the macroglia. The most severe and frequent lesions in the brains were those produced by the vascular disturbances of the convulsive state that accompany many diseases of infancy and young childhood.

Anatomical Record, Philadelphia

64: 413-544 (March 25) 1936

Cytologic Study of Digestive System of Anuran Larvae During Accelerated Metamorphosis. L. Kaywin, New York.—p. 413.
Studies on Growth of Human Nervous System: IV. Material Illustrating Postnatal Growth and Topography of Basal Nuclei. M. B. Hesdorffer and R. E. Scammon, Minneapolis.—p. 443.
Seasonal Sexual Activity and Its Experimental Modification in Male Sparrow, Passer Domesticus Linnaeus. A. Kirschbaum and A. R. Ringoen, Minneapolis.—p. 453.
Effects of Estrin Injections on Accessory Reproductive Organs of Male Ground Squirrel (Citellus Tridecemlineatus). L. J. Wells, Columbia, Mo.—p. 475.
Method of Illuminating Living Structures for Microscopic Study. M. H. Knisely, Chicago.—p. 499.
Study of Thyroid in Embryos of Eleutherodactylus Nubicola. W. G. Lynn, Baltimore.—p. 525.

Annals of Internal Medicine, Lancaster, Pa.

9: 1171-1286 (March) 1936

Long Standing Cases of Auricular Fibrillation with Organic Heart Disease: Some Clinical Considerations. W. A. Evans, Boston.—p. 1171.
*Etiology of Abdominal Pain in Diabetic Acidosis. H. Walker, Richmond, Va.—p. 1178.
Intensive Liver Therapy in Sprue. P. Corr, Riverside, Calif.—p. 1182.
Localization of Site of Experimental Premature Contractions and Bundle Branch Lesions by Means of Multiplane Chest Leads. J. Weinstein and D. I. Abramson, Brooklyn.—p. 1187.
Effectiveness of Acetyl-β-Methylcholine Given by Mouth as Vasodilating Agent. Grace A. Goldsmith, Rochester, Minn.—p. 1196.
*Blackwater Fever: Clinical Review of Fifty-Two Cases. M. Fernán-Núñez, Milwaukee.—p. 1203.
*Treatment of Narcolepsy with Benzedrine Sulfate. H. Ulrich, C. E. Trapp and B. Vidgoff, Boston.—p. 1213.
Abdominal Distention in Lobar Pneumonia. J. Goldman and A. Cohen, Philadelphia.—p. 1222.
Rôle of Accidental Puncture of Veins in Production of Allergic Shock. G. L. Waldbott and M. S. Ascher, Detroit.—p. 1232.
Schiller, the Greatest of the Medical Poets. L. H. Roddis.—p. 1240.

Etiology of Abdominal Pain in Diabetic Acidosis.—Walker declares that the usual signs, symptoms and laboratory observations in prediabetic coma are well known, but the picture is occasionally complicated by symptoms and signs referable to the abdomen which may make it difficult or impossible to determine whether the patient has an intra-abdominal surgical lesion or whether the symptom complex from which the patient is suffering is due entirely to acidosis. A case of this complex syndrome is cited. A differential diagnosis cannot be made without making qualifications. McKittrick states that these patients before operation always suggested some widespread abdominal pathologic process as the cause of the abdominal pain. In diabetic coma, vomiting usually precedes pain, while in precoma cases with surgical complications pain usually precedes vomiting—particularly in acute appendicitis. When appropriate therapy is applied, the signs and symptoms due to acidosis clear up promptly, while, of course, the signs and symptoms in the surgical cases will usually progress. Differentiation is not always possible and, when the patient does not respond in a reasonable length of time, an exploratory laparotomy should be done. In the author's case vomiting preceded the pain by several hours; the patient received insulin in large amounts before entering the hospital, yet in an insufficient quantity to control the acidosis; prompt relief followed the administration of a small quantity of physiologic solution of sodium chloride, and the patient continued to show evidence of acidosis after the pain had subsided. These facts suggest that acidosis was not solely responsible for the symptoms, since, when measured by laboratory means, there was no reduction. The history suggests too that insulin was certainly not the sole factor in controlling the symptoms, but rather that the saline solution was responsible for the relief of symptoms. When clinical conditions, such as heat cramps and "gastric tetany," are considered, the connection seems even more probable. The author suggests that the events producing abdominal symptoms in diabetic acidosis probably develop in the following order: 1. Because of improper fat oxidation, acidosis develops; the acidosis in susceptible patients causes vomiting; the acidosis not being controlled, the vomiting continues. 2. The continuous vomiting depletes the body of chlorides because of loss of hydrochloric acid. The excessive diuresis would produce further chloride loss. 3. In the exercise of abdominal muscles and muscles of respiration, there is brought about a condition in these muscles similar to that which is present in heat cramps and gastric tetany; hence the pain, and hence the relief by sodium chloride.

Blackwater Fever.—Fernán-Núñez believes that blackwater fever is an allergic manifestation of malaria in which quinine, exposure and other resistance-reducing agencies aid in precipitating the attack. It occurs chiefly in Europeans who have had one or more attacks of estivo-autumnal fever during a residence usually of at least two years in the tropics. In such a person sensitized by previous attacks a new attack of estivo-autumnal malaria or the administration of quinine in a latent case brings on the acute syndrome by the liberation of allergens. The author applied his intradermal test with suspensions of Plasmodium falciparum rendered noninfective in a group of persons of Caucasian extraction who had resided in an endemic area of Colombia for more than six months. Following the removal of those showing a positive sensitivity, blackwater fever disappeared from that area.

Treatment of Narcolepsy with Benzedrine Sulfate.—Ulrich and his associates found that the inhalation of benzedrine (synthetic racemic benzyl-methyl carbinamine) for the relief of nasal congestion was followed by sleeplessness, an experience that suggested the use of this method in the treatment of narcolepsy. Clinical trial showed, however, that inhalation of the drug produced very slight results, whereas oral medication was uniformly successful in preventing narcoleptic seizures. Six cases of narcolepsy, showing marked relief, have been treated by them and form the basis of their discussion. Prinzmetal and Bloomberg also found oral treatment with benzedrine to give complete relief in nearly all their cases. The effective daily amount of drug varied from 20 to 50 mg. It appears that the difference between inhalation and ingestion is quantitative. One patient complained of slight nausea at the beginning of oral medication, another's gastro-intestinal symptoms were aggravated during the first period of treatment but not subsequently, and a third had slight temporary anorexia at the beginning of each period of treatment. One patient, a Negro girl aged 12½ years, had an additional menstrual period while taking 50 mg. of the drug and has complained recently of a slight feeling of fulness at mealtime.

Annals of Medical History, New York

7: 503-600 (Nov.) 1935

James Clarke White: The First Professor of Dermatology in America. P. E. Bechet, New York.—p. 503.
Some Account of David Samwell, the Welsh Surgeon, Eye-Witness of the Murder of Captain Cook, Feb. 14, 1779. D. F. Fraser-Harris, London, England.—p. 509.
Grecian Athletic Training in the Third Century (A. D.). B. Gordon, Philadelphia.—p. 513.
Shakespeare's Medical Knowledge: Study in Criticism. I. I. Edgar, Detroit.—p. 519.
Conan Doyle. A. S. MacNalty, London, England.—p. 532.
Samuel Jackson. W. S. Middleton, Madison, Wis.—p. 538.
Depressed Fracture and Trephining of the Skull by the Incas of Peru. J. Daland, Philadelphia.—p. 550.
William Coward, M.D., and His Works, Especially "Ophthalmiatria, London, 1706." B. Chance, Philadelphia.—p. 559.
Galen's Writings and Influences Inspiring Them. J. Walsh, Philadelphia.—p. 570.

Arch. of Physical Therapy, X-Ray, Radium, Chicago

17: 129-192 (March) 1936

Short Wave Diathermy: Comparative Study in Pelvic Heating. J. S. Coulter and S. L. Osborne, Chicago.—p. 135.
Transurethral Prostatic Resection. W. F. Braasch and J. L. Emmett, Rochester, Minn.—p. 140.
Biomechanics: New Method of Studying Physical Disabilities. C. M. Gratz, New York.—p. 145.
Flexible Electrosurgical Unit. A. E. Jones, Chicago.—p. 153.
Colonic Lavage in Treatment of Disease. J. W. Wiltsie, Binghamton, N. Y.—p. 154.
Simplification of Radium Technic in Uterine Cervical Cancer. H. Swanberg, Quincy, Ill.—p. 162.
Fever Therapy in Dementia Paralytica: Its Status at State Hospitals of Illinois. R. H. Kuhns, Chicago.—p. 167.

Archives of Surgery, Chicago

32: 577-746 (April) 1936

Effect of Bilateral Resection of Splanchnic Nerves on Gastric Motility in Man. L. E. Barron, New Haven, Conn., G. M. Curtis and W. T. Haverfield, Columbus, Ohio.—p. 577.
*Lactogenic Substance in Human Breast: Its Use in Experimental Stimulation of Mammary Secretion and Its Assay in Cases of Cystic Disease. C. F. Geschickter and D. Lewis, Baltimore.—p. 598.
Disturbances in Gastro-Intestinal Function After Localized Ablations of Cerebral Cortex. F. A. Mettler, J. Spindler, Cecilia C. Mettler and J. D. Combs, Augusta, Ga.—p. 618.
Acholic Cachexia: Experimental Studies. A. D. Bissell and E. Andrews, Chicago.—p. 624.
*Malignant Degeneration of Benign Bone Cyst? C. B. Francisco, Kansas City, Kan., M. E. Pusitz and M. Gerundo, Topeka, Kan.—p. 669.
Carcinoma of Stomach Following Gastro-Enterostomy for Peptic Ulcer. H. K. Ransom, Ann Arbor, Mich.—p. 679.
Chronic Subdural Hematoma. L. T. Furlow, St. Louis.—p. 688.
Autotransplantation of Parathyroid Gland in Dog: Evaluation of Halsted's Law of Deficiency. P. Shambaugh, Boston.—p. 709.
Evisceration Following Abdominal Operations. R. B. Bettman and Gemma M. Lichtenstein, Chicago.—p. 721.
Review of Urologic Surgery. A. J. Scholl, Los Angeles; E. S. Judd, Rochester, Minn.; J. Verbrugge, Antwerp, Belgium; A. B. Hepler, Seattle; R. Gutierrez, New York, and V. J. O'Conor, Chicago.—p. 730.

Lactogenic Substance in Human Breast.—Geschickter and Lewis produced mammary secretion in three of sixteen nonpregnant menstruating women by intramuscular administration of estrogen and of lactogenic substance, which had no effect in eight and lactogenic substance alone had no effect in the remaining five. In the three women in whom mammary secretion was observed, a diagnosis of adenosis of the breast was made. Each received about 3,500 units of estrogen over a period of a month, followed by injections of from 600 to 1,120 bird units of lactogenic substance given within a week. The secretion ceased within a period of three days and could not be prolonged by further injections or by mechanical stimulation. Histologic studies of tissue removed for biopsy were made before and after the injections in several cases. The changes of true functional lactation were not observed histologically. Bio-assays showed the presence of lactogenic substance in the tissue of udders from lactating cows and in the milk (mixed with colostrum) of lactating cows obtained within two weeks of calving. It was concluded that high concentrations of estrogen, of lactogenic substance and of progestin are probably essential to normal lactation in the human breast. The resemblance between the secretory activity seen in patients with chronic cystic mastitis and that obtained in the patients treated in this series is pointed out. Bio-assays have demonstrated the presence of estrogen and of lactogenic substance in the cyst fluid from patients with chronic cystic mastitis. Bio-assays have also shown the presence of estrogen in mammary tissue removed from patients with chronic cystic mastitis. It is concluded that lactogenic substance and estrogen assume an etiologic rôle in the secretory activity and in the pathologic changes observed in patients with cystic disease.

Malignant Degeneration of a Bone Cyst.—Francisco and his co-workers cite a case of what they believe to be a malignant change in a benign bone cyst. The child, when 9 months old, slipped and fell, receiving a definite injury to the leg. Conservative treatment was tried for six months but had no effect in lessening the pain. When she was 15 months old, roentgenograms were taken and a diagnosis of sarcoma was made. Roentgen treatment had no effect in controlling the pain, which caused the parents to seek further help. No definite deformity was described at that time. The child was approximately 3 years old when she was first seen by one of the authors (Francisco), at which time no gross deformity was noted. Anteroposterior and lateral roentgenograms of the right tibia, taken April 4, 1928, showed a multilocular cystic appearance of the upper end of the tibia. This began at or below the metaphyseal end of the diaphysis and did not extend upward at all, so that the lesion did not affect the epiphyseal line. Areas of sclerosis were seen already lining some of the cystic cavities. The area of involvement extended downward for about one third or less of the length of the shaft of the bone. June 25, 1930, roentgenograms showed almost complete obliteration of the cystic cavities, with much condensation of the bone. At that time the patient was discharged by Francisco as cured of the bone cyst. No further trouble was encountered until the present illness, which began Dec. 18, 1934, with the complaint of pain and swelling in the upper part of the right leg. December 20 a simple exploration was performed. Macroscopically the tissues resembled sarcomatous tissue rather than granulation or cystic tissue. The roentgenologist stated that, if the clinical and pathologic diagnosis was osteogenic sarcoma, the roentgenogram could be well interpreted as showing osteogenic sarcoma. The final diagnosis was osteogenic sarcoma, and immediate amputation to be followed by irradiation was advised. The amputation was performed in the upper part of the thigh at the junction of the upper with the middle third, leaving just enough stump to control an artificial leg. The patient did exceptionally well after the amputation and has made a remarkable personal change. She received her first course of roentgen therapy and is to return for further irradiation under the supervision of the radiologist. The tumor tissue was found to be made up chiefly of large capsulated cells, which had the characteristics of hyaline cartilage cells. The pathologic diagnosis was chondrosarcoma of the tibia originating from the metaphysis and extending to the diaphysis of the bone.

Colorado Medicine, Denver

33: 233-304 (April) 1936

Scope and Limitation of the Term "Eczema." G. M. Frumess, Denver.—p. 244.
The Relationship of Fear to the Psychoneuroses: Preliminary Report. J. P. Hilton, Denver.—p. 248.
Diagnosis of Bronchopneumonia. R. C. Trueblood, Cody, Wyo.—p. 257.
Lobar Pneumonia in the Adult. W. B. Yegge, Denver.—p. 258.
Bronchopneumonia in Infancy and Childhood: Incidence, Prognosis and Treatment. J. W. Amesse, Denver.—p. 263.
Treatment of Pneumonia. R. T. Jellison, Salt Lake City.—p. 267.

Endocrinology, Los Angeles

20: 137-306 (March) 1936

*Metabolic Studies of Pituitary Insufficiency. H. A. Bulger and D. P. Barr, St. Louis.—p. 137.
*Cachexia Hypophyseopriva (Simmonds' Disease) with Thyroid and Suprarenal Insufficiency. E. Rose and G. Weinstein, Philadelphia.—p. 149.
Pituitary Cachexia (Simmonds' Disease): Report of Case in Which the Patient Failed to Respond to Various Forms of Endocrine Therapy. R. C. Moehlig, Detroit.—p. 155.
Effect of Alkaline Extract of Anterior Hypophysis on Weight of Spleen and Adrenal Glands and on Blood Calcium Level. H. B. Friedgood, Boston.—p. 159.
Influence of Endocrine Gland Preparations on Allergic Reactions (Anterior Pituitary Extract, Pregnancy Urine Extract, Follicular Hormone). B. Solomonica and R. Kurzrok, New York.—p. 171.
Familial Hemolytic Icterus Associated with Endocrine Dysfunction. E. H. Falconer, San Francisco.—p. 174.
Excretion of Prolan in Essential Hypertension. M. Scarf and S. L. Israel, Philadelphia.—p. 180.
Chemical Changes in Muscle of Hypophysectomized Toad. A. D. Marenzi, Buenos Aires, Argentina.—p. 184.
Is the Pressor Effect of Glycerin Extract of Adrenal Glands Due to Epinephrine? R. G. Hoskins and J. S. Gottlieb, Worcester, Mass.—p. 188.
Difference of Response of Males with Undescended Testes to Water Soluble (Anterior Pituitary-like) Fraction of Pregnancy Urine. H. S. Rubinstein, Baltimore.—p. 192.
Effect of Gonadectomy on Thyroid Gland in the Guinea-Pig. A. A. Kippen and L. Loeb, St. Louis.—p. 201.
Induction of Acid Vaginal Secretion in Immature Macaque by Injections of Estrin. B. V. Hall, Urbana, Ill., and R. M. Lewis, New Haven, Conn.—p. 210.
Reaction of Fish to Sex Hormones. S. E. Owen, Hines, Ill.—p. 214.
Effect of Injections of Antuitrin-S on Sexually Inactive Male Ground Squirrel. B. L. Baker and G. E. Johnson, Manhattan, Kan.—p. 219.

Metabolic Studies of Pituitary Insufficiency.—The studies of Bulger and Barr relate to the activity of pituitary and certain other extracts on metabolic processes. They were made on four patients with marked endocrine abnormalities in which the pituitary was possibly primarily involved. Two

patients considered to have respectively pituitary cachexia and pituitary dwarfism showed a definite gain in weight, improvement in their general condition and marked storage of nitrogen, sulfur, calcium and phosphorus without specific treatment. There seemed to be no cause for this except an adequate attractive diet, rest and good nursing care. In a case considered to be pituitary cachexia, magnesium was lost during control periods of study while rather large amounts of other elements were stored. In the case of pituitary dwarfism, magnesium as well as other elements was retained. The administration of adrenal cortex extract in pituitary cachexia was associated with a temporary rise in blood pressure, reversion of a negative magnesium balance to a positive balance and increased retention of calcium. When the extract was discontinued, this was followed by an increased excretion of magnesium, calcium and phosphorus. The administration of anterior pituitary-like substance from pregnancy urine to a patient with pituitary cachexia for seven days caused a prolonged rise in blood pressure, an increase in the negative magnesium balance and retention of magnesium. Growth hormone produced no striking changes in pituitary cachexia or pituitary dwarfism. A patient with pituitary cachexia, while receiving thyrotropic hormone, became quite ill. The basal metabolic rate rose to normal. A loss of nitrogen, phosphorus and sulfur ensued and calcium retention decreased. A negative magnesium balance of control periods reverted to a positive balance. Creatinuria developed though the basal metabolic rate did not rise above normal. While the patient was receiving the thyrotropic hormone and still quite ill, adrenal cortex extract appeared to cause some improvement and was associated with a rise in blood pressure. The patient with pituitary dwarfism also became ill on thyrotropic hormone. The basal metabolic rate at first rose slightly and then fell to below the original level. He developed a negative nitrogen and sulfur balance. The previous positive magnesium balance reverted to a negative balance. Creatinuria increased. Starting on the seventeenth day, while still receiving thyrotropic hormone, he was given iodine. Coincident with this the basal metabolic rate fell still lower and he began to store all the elements studied. A patient with myxedema and evidence of pituitary disease showed no change in basal metabolic rate or nitrogen metabolism on thyrotropic hormone. Desiccated thyroid, however, produced a typical response with a negative nitrogen balance and marked creatinuria even though the basal metabolic rate did not rise above normal.

Cachexia Hypophyseopriva with Thyroid and Adrenal Insufficiency.—Rose and Weinstein cite a case of pituitary cachexia, verified by necropsy. From the histologic appearance alone it could not be determined definitely whether the pituitary, thyroid or adrenal changes initiated the patient's disease. However, the clinical history conforms well with that of primary pituitary cachexia, and it may be reasonably assumed that this was not a case of multiple synchronous endocrine sclerosis of the Falta type. The marked hypoglycemia and increased dextrose tolerance, the terminal coma, hemoconcentration, azotemia and hypotension all suggest a terminal adrenal failure as the immediate cause of death. The high fever is rather difficult to explain, although terminal hyperpyrexia occurs in pituitary neoplasms; a terminal septicemia might have been responsible. The return of the basal metabolism to normal under thyroid therapy in 1931 suggests that its original low level was due to secondary thyroid failure rather than directly to anterior pituitary insufficiency. The hypercholesteremia was probably also due to secondary thyroid failure. The dense round cell infiltration of the thyroid suggested an associated inflammatory process in addition to the atrophy, fibrosis and disorganization. Death occurred before cachexia had become marked. The hemorrhagic spongy appearance of the gums suggested a possible scorbutic factor associated, perhaps, both with dietary deficiency and inability to utilize available cevitamic acid because of adrenal insufficiency. Finally, the correct diagnosis should have been made or suspected when the patient was first seen in 1931, as the history and signs were fairly typical at that time. At necropsy marked atrophy, fibrosis and destruction of normal architecture were noted in the anterior pituitary, adrenal cortices and thyroid. The posterior pituitary and pancreas were not affected.

Florida Medical Association Journal, Jacksonville

22: 393-448 (March) 1936

Immunization Against Contagious Diseases of Childhood. W. Quillian, Coral Gables.—p. 407.

Basic Changes in Tuberculosis Control. J. A. Myers, Minneapolis. —p. 412.

Adenoma of the Thyroid. C. Anderson, Orlando.—p. 420.

Georgia Medical Association Journal, Atlanta

25: 75-112 (March) 1936

Contributions of Crawford W. Long and His Contemporaries to American Medicine. M. Cutler, Chicago.—p. 75.

Signs and Symptoms of Early Cancer. J. F. Denton, Atlanta.—p. 81.

Journal of Experimental Medicine, New York

63: 465-616 (April 1) 1936

Effects of Adrenalectomy and Hypophysectomy on Experimental Diabetes in the Cat. C. N. H. Long and F. D. W. Lukens, Philadelphia. —p. 465.

Studies on Etiology of Rabbit Pox: V. Studies on Species Susceptibility to Rabbit Pox Virus. Louise Pearce, P. D. Rosahn and C.-K. Hu, New York.—p. 491.

Studies on Uncomplicated Coryza of Domestic Fowl: V. Coryza of Slow Onset. J. B. Nelson, Princeton, N. J.—p. 509.

Id.: VI. Coccobacilliform Bodies in Birds Infected with Coryza of Slow Onset. J. B. Nelson, Princeton, N. J.—p. 515.

Concerning Relation of Environmental Temperature to Resistance to Thyroid and Thyroxine, and Creatine Content of the Heart and Other Tissues in Experimental Hyperthyroidism. M. Bodansky, J. F. Pilcher and Virginia B. Duff, Galveston, Texas.—p. 523.

Epidemic in Mouse Colony Due to Virus of Acute Lymphocytic Choriomeningitis. E. Traub, Princeton, N. J.—p. 533.

Studies on Meningococcus Infection: IX. Standardization and Concentration of Antimeningococcus Horse Serum (Type I). H. W. Scherp and G. Rake, New York.—p. 547.

Studies on the Common Cold: VI. Cultivation of Virus in Tissue Medium. A. R. Dochez, K. C. Mills and Y. Kneeland Jr., New York.—p. 559.

*Studies on Virus of Influenza. A. R. Dochez, K. C. Mills and Y. Kneeland Jr., New York.—p. 581.

Relation of Hypophysis to the Spleen: I. Effect of Hypophysectomy on Growth and Regeneration of Spleen Tissue: II. Presence of Spleen-Stimulating Factor in Extracts of Anterior Hypophysis. D. Perla, New York.—p. 599.

Studies on Virus of Influenza.—Dochez and his associates report the experiments that they have performed with the virus of influenza from 1931 to 1935. Evidence is presented indicating the presence of a filtrable virus in the nasopharyngeal secretions of individuals suffering from influenza. An attempt to transfer influenza from one human being to another by means of filtered nasopharyngeal washings resulted in the production in the inoculated volunteer of a common cold. A filtrable agent has been cultivated in tissue medium from the filtered nasopharyngeal washings of patients with influenza. Inoculation of the cultivated virus into volunteers results for the most part in the production of a severe common cold with a tendency to pronounced constitutional reaction. In one instance following inoculation of culture virus an infection clinically resembling influenza has been produced. The more closely the source of the virus approached the type of epidemic influenza, the more likely the virus was to provoke constitutional symptoms. The presence of certain pathogenic bacteria in the upper respiratory tract of inoculated individuals was not observed to modify the course or character of the experimental infection. On prolonged cultivation the virus loses the capacity to infect human volunteers.

Journal of Nutrition, Philadelphia

11: 191-292 (March 10) 1936

Energy and Gaseous Metabolism of Normal and Deutectomized Chicks Between Ten Hours and One Hundred Hours of Age. H. G. Barott, T. C. Byerly and Emma M. Pringle, Beltsville, Md.—p. 191.

Calcium and Phosphorus Retention in Growth, in Relation to Form of Carbohydrate in Food. Mary Speirs and H. C. Sherman, New York.—p. 211.

Effect of Heat as Used in Extraction of Soy Bean Oil on Nutritive Value of Protein of Soy Bean Oil Meal. J. W. Hayward, H. Steenbock and G. Bohstedt, Madison, Wis.—p. 219.

Metabolism of Women During the Reproductive Cycle: VII. Utilization of Inorganic Elements (Continuous Case Study of Multipara). Frances Cope Hummel, Helen R. Sternberger, Helen A. Hunscher and Icie G. Macy, Detroit.—p. 235.

Significance and Accuracy of Biologic Values of Proteins Computed from Nitrogen Metabolism Data. H. H. Mitchell, W. Burroughs and Jessie R. Beadles, Urbana, Ill.—p. 257.

Rickets in Rats: XV. Effect of Low Calcium High Phosphorus Diets at Various Levels and Ratios on Production of Rickets and Tetany. A. T. Shohl, with note by S. B. Wolbach, Boston.—p. 275.

Journal of Urology, Baltimore

35: 253-416 (March) 1936

Leiomyoma Associated with Benign Cysts in Kidney with Duplicate Pelves. V. S. Counseller and J. G. Menville, Rochester, Minn.—p. 253.
Unusual Unilateral Multicystic Kidney in an Infant. J. Schwartz, New York.—p. 259.
Surgical Treatment of Horseshoe Kidney, with Especial Reference to Division of Isthmus. W. W. Baker and J. A. C. Colston, Baltimore.—p. 264.
Peripancreatitis Secondary to Perirenal Infections. C. Ferguson, Ellis Island, N. Y.—p. 286.
*Vaginal Ureterolithotomy. E. C. Shaw, Miami, Fla.—p. 289.
Clinical Importance of Ureterocele. J. S. Rhodes, Boston.—p. 300.
Experiences with Renal and Vesical Carcinoma. F. T. Bond, New York.—p. 309.
Bladder Tumors. F. J. Parmenter and C. J. Leutenegger, Buffalo.—p. 316.
Leukoplakia and Carcinoma of Urinary Bladder: Report of Case, with Review of Literature. S. M. Rabson, New York.—p. 321.
*Carcinoma of Prostate Simulating Primary Rectal Malignancy. C. J. E. Kickham, Boston.—p. 342.
The Very Aged Prostatic. F. P. Twinem, New York.—p. 349.
Retrovesical Sarcoma. H. C. Rolnick, Chicago.—p. 353.
Primary Tuberculosis of the Penis. J. A. Lazarus and A. A. Rosenthal, New York.—p. 361.
Relationship of Cryptorchidism to Tumor of Testis. F. Hinman and F. H. Benteen, San Francisco.—p. 378.
Biochemistry and Physiologic Significance of Male Sex Hormones. F. C. Koch, Chicago.—p. 382.
Cardiospasm and Paralysis of Bladder Due to Sympathetic Dysfunction: Case. T. E. Gibson and V. H. Mitchell, San Francisco.—p. 399.
Peridural Segmentary Anesthesia in Renal Surgery. L. Caporale, Turin, Italy.—p. 403.
Improved Retention Catheter. F. C. Hendrickson, Canton, Ohio.—p. 409.
The Rubin Endoscope. J. S. Rubin, Los Angeles.—p. 411.
New Hemostatic Bag for Use After Suprapubic Prostatectomy. B. S. Brooke, Clarksburg, W. Va.—p. 413.

Vaginal Ureterolithotomy.—Shaw employed the lateral incision directly over the ureter in his four vaginal ureterolithotomy operations and found this simple method satisfactory. A description of the operation is given. In two cases the operation seemed to be almost life saving, as he does not believe that either patient could have stood the removal of the calculus by any other approach at the time. The accidental production of vesicovaginal fistula in his first case illustrates a possible operative complication that has not been stressed in the literature. If the operator keeps the relationship of the base of the bladder, cervix and ureter in mind, this accident should never occur. The bladder can be readily avoided by inclining the dissecting finger laterally and posteriorly and approaching the ureter on its lateral and posterior aspect. The selection of cases for the employment of vaginal ureterolithotomy may well give rise to some difference of opinion. Obviously, impacted stones, readily palpable on vaginal examination, fall into this group. It is quite probable that calculi so small or so high as not to be palpable, but demonstrated roentgenographically in the lower ureter and fixed with a ureteral catheter, may be handled by this approach. The failure of an attempt to remove the calculus by the vaginal route would do the patient little harm and it might be tried even in doubtful cases before the more serious abdominal operation is employed. The author is in accord with the conclusions reached by Lower in listing the advantages of vaginal ureterolithotomy. The operation carries so slight a degree of shock that it may be performed with relative safety on extremely ill patients.

Carcinoma of Prostate Simulating Malignant Condition of Rectum.—During the last three years Kickham encountered four cases of carcinoma of the prostate that were unusual in their extension and clinical behavior. The predominant symptoms were referred to the rectum and consisted of intractable constipation, tenesmus, mucus discharge at the anus, fecal incontinence and, in one instance, rectal bleeding. Symptoms referable to the genito-urinary tract were either absent or, if present, were mild in character. On digital examination the appearance of the rectum closely simulated a malignant rectal disorder. The final clinical diagnoses were made only after special diagnostic measures, including proctoscopy, cystoscopy and roentgenologic studies. In view of the anatomic approximation of the rectum and the prostate gland, it would seem logical to encounter rectal symptoms frequently in the development and course of a malignant condition of the prostate, due either to actual invasion of the rectal wall by the tumor cells or to constriction of its lumen by the bulging mass of the tumor. However, this does not take place as often as one would expect, apparently because of nature's line of defense—Denonvilliers' fascia lying between the two organs and acting as a barrier against posterior invasion of the neoplasm. However, actual rectal extension from carcinoma of the prostate may occur, as this fascia is not impervious to invasion by tumor cells. It is at times disclosed at postmortem examination when clinical signs have not suggested it. In more than 200 cases of carcinoma of the prostate at the Pondville Hospital, no fistulas were encountered clinically. The author feels that it is most unusual to find carcinoma of the prostate gland simulating a malignant condition of the rectum so closely as in the four cases described.

Laryngoscope, St. Louis

46: 169-244 (March) 1936

Present Status of Plastic Nasal Surgery. S. Cohen, Philadelphia.—p. 169.
Sewall Sphenoid Sinus Operation, Modified. W. D. Chase, Bethlehem, Pa.—p. 181.
Permanent Drainage for Frontal Sinusitis. H. H. Amsden, Concord, N. H.—p. 184.
Bilateral Blindness Due to Affection of Posterior Accessory Sinuses. J. J. Rainey, Troy, N. Y.—p. 185.
Auditory Function Studies in Unselected Group of Pupils at the Clarke School for the Deaf: III. Relation Between Hearing Acuity and Vestibular Function. Ruth P. Guilder and Louise A. Hopkins, Northampton, Mass.—p. 190.
Thrombophlebitis of Internal Jugular Vein Following Acute Tonsillitis: Report of Case. L. C. Menger, Brooklyn.—p. 198.
The Care of Cleft Palate Patients. H. G. Beatty, Columbus, Ohio.—p. 203.
One Hundred and Seventy-Nine Foreign Bodies in Food Passages. G. O. Cummings, Portland, Maine.—p. 227.

Maine Medical Journal, Portland

27: 45-62 (March) 1936

Observations on Successful Diagnosis and Treatment of Cancer. Barbara Hunt, Bangor.—p. 50.
Brain Tumors. O. L. Hanlon, Ridlonville.—p. 53.
Laryngeal Diphtheria. G. O. Cummings, Portland.—p. 55.
*Temporary Insulin Resistance Associated with Acute Prostatic Obstruction. E. R. Blaisdell, Portland.—p. 58.

Temporary Insulin Resistance.—Blaisdell reports the case of an elderly man with diabetes who entered the hospital for treatment of a ruptured quadriceps muscle and was standardized with 45 units of insulin daily but developed a prostatic obstruction and temporary resistance to insulin. At the height of the resistance, 289 units was given daily in the absence of acidosis. During the period of the resistance (twenty-nine days) he was given 5,692 units of insulin. A transurethral prostatectomy, performed shortly after the period of resistance, had no appreciable effect on the insulin requirement and, six months later, the daily requirement was only 10 units. It is difficult to explain the sudden increase in insulin requirement. It hardly can be ascribed to the prostatic obstruction, as diabetic patients with prostatic obstruction rarely require more than a moderate increase, if any, in insulin during the period of obstruction. Examination failed to disclose any evidence of infection at the onset of the resistance. The patient did have a rise of temperature for a few days, but this did not develop until two weeks after it was necessary to increase the insulin. The most probable explanation was the possibility of a posterior urethral infection or a prostatic abscess, but the absence of pus in the urine makes one somewhat skeptical of this diagnosis. It is fair to assume, however, that failure to control the diabetes with adequate doses of insulin would have resulted in death.

Medicine, Baltimore

15: 1-128 (Feb.) 1936

*Artificial Pneumothorax in Lobar Pneumonia. F. G. Blake, Marion E. Howard and Winifred S. Hull, New Haven, Conn.—p. 1.
Treatment of Human Brucellosis: Review of Current Therapeutic Methods. C. M. Carpenter and Ruth A. Boak, Rochester, N. Y.—p. 103.

Artificial Pneumothorax in Lobar Pneumonia.—In their observations on the therapeutic effects of artificial pneumothorax in forty-two cases of lobar pneumonia, Blake and his co-workers place emphasis on the method of treatment evolved during the course of the study and on the effect of artificial pneumothorax on the clinical course and outcome of the disease in an effort to define tentatively the conditions under which artificial pneu-

mothorax would appear to be therapeutically useful. The results obtained indicate that the procedure is of definite therapeutic value, but only under certain limited conditions: 1. When the volume of air introduced into the pleural cavity is sufficient to raise the mean intrapleural pressure promptly to from + 1 to + 2 cm. with the patient in the lateral position, pneumonic side up, resulting in complete collapse and immobilization of the lung on the affected side. 2. When the frequency and volume of refills is sufficient to maintain the mean pressure at this level and the lung retracted until danger of relapse is past. 3. When treatment is instituted early in the disease; i. e., certainly within less than seventy-two hours after onset, probably within less than forty-eight hours in most cases. 4. When the pleura is free from adhesions that interfere with retraction of the involved lung. The series includes ten cases without interfering pleural adhesions in which treatment was started prior to forty-eight hours after onset. Artificial pneumothorax seemed of little or no therapeutic value in advanced cases of more than seventy-two hours' duration and in even earlier cases with extensive pleural adhesions. In the intermediate group first treated between forty-eight and seventy-two hours after onset, the results remain of doubtful significance in view of the early appearance of agglutinins in three of the six cases without adhesions, and the occurrence of relapse after initial improvement in two of the remaining three cases.

Missouri State Medical Assn. Journal, St. Louis

33: 121-164 (April) 1936

*Significance of Convulsions in Diagnosis of Brain Tumor. E. Sachs and L. T. Furlow, St. Louis.—p. 121.
Ethical Plan for Medical Care of Those in Low Income Group. W. T. Coughlin, St. Louis.—p. 127.
*Parathyroids in Relation to Chronic Arthritis: Practitioner's Commonplace Point of View. W. T. Wootton, Hot Springs National Park, Ark.—p. 129.
Treatment of Chronic Uncomplicated Malnutrition. B. Y. Glassberg, St. Louis.—p. 132.
Tendovaginitis (Tenosynovitis): General Discussion and Report of One Case Involving Posterior Tibial Tendon. J. Kulowski, St. Joseph.—p. 135.
Acute Mastoiditis Including Indications for Operation. I. D. Kelley Jr., St. Louis.—p. 137.
New Method for Reduction and Retention of Central Dislocations of Hip and of Fractures of Acetabulum with Displacement. E. P. Heller, Kansas City.—p. 139.
Pathology of Air Embolism: Report of Two Cases. L. L. Tureen and J. B. Devine, St. Louis.—p. 141.
Bronchoscopy: Diagnostic Aid. J. S. Knight, Kansas City.—p. 144.

Significance of Convulsions in Diagnosis of Brain Tumor.—Sachs and Furlow believe that every adult patient who has a convulsion must be considered as possibly having a tumor until proved otherwise. In a review of 724 cases of verified tumors 150, or 20.7 per cent, had convulsions at some time before operation. In this series, 397 patients had cerebral tumors, 247 had cerebellar tumors and seventy-nine had pituitary tumors. None of the patients with pituitary tumors had convulsions. Only twelve, or 4.8 per cent of the patients with cerebellar tumors had convulsions, while 138 of the 397 with cerebral tumors, or 34.8 per cent, had convulsions. In other words, more than one third of all the patients with cerebral tumors had convulsions either as the first symptom or at some time in the course of the disease. Of the 150 patients who had convulsions, twenty-seven had them for periods ranging from five to twenty-five years before the diagnosis of tumor was finally made. These patients had benign, slowly growing tumors and should have presented an excellent prognosis. Owing to the fact, however, that the tumor had been present such a long time, permanent irreparable damage had occurred frequently and the tumor had attained such great size that what might have been a comparatively simple operation in the early years had become a most difficult one.

Parathyroids in Relation to Chronic Arthritis.—Wootton's interpretation is that the bone deformity called arthritis is merely one symptom, although the one most frequently seen, of the shifting location of the lime salts making up our skeletal framework and blood serum content. Therefore, one may consider chronic arthritis as one of the stages of calcium metabolism and dependent completely on there being a concomitant edema (allergy) of the synovia. If one can prevent the original edema one can first prevent the occurrence of acute arthritis and secondly remove the primary essential to all chronic changes of the joint other than the purely mechanical. Without an edema of the synovia or periosteum of a joint the protection remains impervious to either an absorption or a redeposit of calcium within a joint. Oppel, Ballin and Morse report encouraging results from the removal of a parathyroid. Oppel says that pain and stiffness were relieved almost at once. The beneficial influence of parathyroidectomy on pain and stiffness of the spine was marked in all cases. Merritt reports improvement by irradiation of the parathyroids in his cases of hypercalcemia producing cystic degeneration of the long bones and vertebrae. Schkurov reports 116 cases of chronic polyarthritis and spondylarthritis in which only eight patients failed to get relief from pain and swelling and have restored a considerable degree of mobility following parathyroidectomy. Schkurov gives Oppel the credit for establishing the rationale of the procedure. As surgical intervention is apparently still in the experimental stage in this country and abroad and roentgen atrophying of the glands has not proved uniformly encouraging, the only other route of attack lies in the prevention of allergic reaction in the synovia against allergens from foci of infection and protein foods. Undoubtedly there will be times when a hyperplastic gland may be suspected or an adenoma may be removed. But these occurrences will be so few compared to the irregular and transitory overstimulation of the parathyroids that may occur from numerous causes that they will prove exceptional. And always one will be faced with the problem of whether the hyperparathyroidism is mechanical as the result of hyperplasia or adenoma due to endocrine influence or automatically induced by hyperphosphatemia not causally related to the endocrine system.

New England Journal of Medicine, Boston

214: 613-664 (March 26) 1936

Certain Aspects of Hand Surgery. T. W. Harmer, Boston.—p. 613.
Activity of Urinary Bladder as Measured by New and Inexpensive Cystometer. D. Munro, Boston.—p. 617.
Management of Skull Fractures: How Can the High Mortality Rate Be Reduced? H. E. Mock, Chicago.—p. 625.
The Mechanics of Delivery, Especially as It Relates to Intracranial Hemorrhage. F. C. Irving, Boston.—p. 635.
Prevention of Puerperal Infection. F. S. Kellogg, Boston.—p. 636.
Causes of Sudden Blindness. A. J. Bedell, Albany, N. Y.—p. 640.

New York State Journal of Medicine, New York

36: 383-468 (March 15) 1936

Abuse of Cesarean Section. E. G. Langrock, New York.—p. 383.
Tuberculous and Tuberculoid Skin Diseases: Study of Two Hundred and Forty Cases. T. J. Riordan, New York.—p. 388.
*Value of Erythrocyte Sedimentation Rate Determination in Psychiatric Cases. H. S. Gregory, Binghamton.—p. 391.
Treatment of Gastroduodenal Ulcers as an Office Procedure. A. Bassler, New York.—p. 395.
Gallbladder Disease. M. H. V. Cameron, Toronto, Canada.—p. 399.
Scarlet Fever Immunity: Production and Maintenance: Study of Comparative Values of Raw and Modified Streptococcus Toxins. R. J. Reid, Thiells.—p. 403.
The Place of Neuropsychiatry in a General Hospital. J. L. Eckel, Buffalo.—p. 407.
Roentgenographic Examination of Lungs: Relationship of Certain Technical Factors. C. C. McCoy, Cooperstown.—p. 411.
The New State Tuberculosis Hospitals. R. E. Plunkett, Albany.—p. 418.
Psychic Factors in Cardiovascular Disease. H. F. Dunbar, New York.—p. 423.
Facial Paralysis: In Acute and Chronic Purulent Otitis Media. C. Hirsch, New York.—p. 430.

Erythrocyte Sedimentation Rate in Psychiatric Cases.—According to Gregory, the erythrocyte sedimentation rate determination, based on the study of blood specimens (oxalated) from 1,102 newly admitted patients to the Binghamton State Hospital over a period of three years, seems to permit the following conclusions: 1. It is not diagnostic of any particular psychotic group. 2. It is a valuable diagnostic and prognostic aid in evaluating organic pathologic changes in all types of mental cases, often revealing the presence of previously unsuspected disease and giving an indication for further physical diagnostic studies. 3. Higher rates were obtained in the group of organic than in the group of functional psychoses because of the more frequent occurrence of inflammations, new growths, tissue degenerations, and so on. 4. The test is sensitive to acute respiratory infections, including the common cold, and to immunization inoculations, which must be ruled out in

searching for an underlying pathologic condition. 5. Potassium oxalate is a satisfactory anticoagulant, making it possible to apply the test with oxalated blood specimens sent to the laboratory for other types of examinations. 6. The technic is so simple as to make the test a boon to the private practitioner as well as to the hospital pathologist.

Ohio State Medical Journal, Columbus

32: 289-384 (April 1) 1936

Upper Abdominal Distress. C. R. Clark, Youngstown.—p. 305.
The Prevention of Cancer of the Cervix. P. Findley, Omaha.—p. 309.
Nasal Manifestations of Allergy in Infancy and Childhood. K. D. Figley, Toledo.—p. 312.
*Clinical Application of Anatomy and Physiology of Hypothalamus. A. R. Vonderahe, Cincinnati.—p. 315.
Functional Heart Disorders. F. Jukes, Akron.—p. 319.
Maternal and Fetal Mortalities. S. C. Runnels, Cleveland.—p. 323.
The Relationship of Eye Defects to School Failures. G. L. King Jr. and Dorothea Keplinger, Alliance.—p. 331.
Status of Serums and Vaccines in General Practice. W. G. Workman, Washington, D. C.—p. 335.
Carcinoma of the Bronchus: Suggestions in Diagnosis. C. P. Swett, Sugar Grove.—p. 338.
Are Mercy Killings Justified? G. E. Byers, Salem.—p. 342.
Case Record Presenting Clinical Problems: A Child with Septic Temperature, Progressive Anemia, Enlarged Spleen and Death. H. L. Reinhart and S. A. Hatfield, Columbus.—p. 345.

Application of Anatomy and Physiology of Hypothalamus.—Vonderahe states that accumulating clinical and pathologic data indicate that the pituitary body cannot be considered apart from the contiguous portion of the central nervous system; i. e., hypothalamus. All cases suggesting the traditional symptomatology of pituitary disease, therefore, require investigation into possible central neurologic mechanisms involved in the production of these phenomena. The central domination of the metabolic function, temperature regulation, sleep and the sympathetic and parasympathetic systems suggests that the complete understanding of metabolic disease as presented to the internist requires inclusion of a consideration of these central visceral centers. The various trophic disturbances of the skin presented to the dermatologist and the trophic disturbance of bones presented to the orthopedist similarly require understanding of this area for the adequate explanation of many of the cases. For the pharmacologist it appears most probable that hidden away in this central area of the brain, difficult of access by surgery, are cellular centers capable of highly selective and specific responses to drugs. The area is of special interest to the psychiatrist. If the psychiatrist insists on an organic foundation for psychoses, here is the area in which biochemistry and neurology meet to offer a basis for a physical foundation for behavior; if the psychiatrist finds the answer to his problems in purely conscious mechanism, here is the necessary anatomic substratum for his theories; if he does not wish to commit himself to either extreme, the anatomic and physiologic data here presented permit him to interpret his observations with a suitable balanced attitude.

Pennsylvania Medical Journal, Harrisburg

39: 385-472 (March) 1936

Treatment of Sinus Disease. A. W. Proetz, St. Louis.—p. 385.
Etiology and Diagnosis of Sinusitis. W. D. Chase, Bethlehem.—p. 389.
Clinical Anatomy and Development of Paranasal Sinuses. J. P. Schaeffer, Philadelphia.—p. 395.
Roentgen-Ray Diagnosis of Accessory Sinus Disease. W. F. Manges, Philadelphia.—p. 404.
Group Hospitalization from the Medical Standpoint. S. R. Haythorn, Pittsburgh.—p. 409.
Pediatric Therapeutics. W. N. Bradley, Philadelphia.—p. 412.
The More Common Obstetric Complications. J. R. Eisaman, Pittsburgh.—p. 413.
*Complement Fixation Test in Gonorrheal Infection. H. Hirshland and Helen C. Hirshland, Reading, Pa.—p. 416.
Differential Diagnosis in Abdominal Tragedies. M. Lick, Erie.—p. 421.

Complement Fixation Test in Gonorrheal Infection.—The Hirshlands studied 545 gonococcus complement fixation tests performed on the serum of 227 female patients under controlled conditions in a quarantine station. In interpreting the reports of the complement fixation tests, a test is considered positive if it shows slight inhibition (plus-minus) to complete inhibition of hemolysis (plus 4). A repeated weakly positive reaction is regarded as specific as a strongly positive reaction. Many cases in the series proved this. The degree of positivity varied with the clinical picture, a plus-minus often occurring in the early stages of a severe infection, at the height of a mild infection, or just before the complement fixation test became negative. Vaginal smears were obtained for examination from the urethra and cervix. It was found that the complement fixation test is of great value in cases of chronic gonorrhea in confirming the clinical diagnosis of gonorrhea or in eliminating its presence. It is of little value in the diagnosis of acute or subacute gonorrhea, with these exceptions: A persistent negative reaction throughout the convalescence indicates a good prognosis, often a cure; on the contrary, a positive test indicates complications and trouble ahead. The complement fixation test for gonococci is valuable in distinguishing between gonorrheal and syphilitic lesions. It is of valuable aid in doubtful diagnosis of chronic lesions, especially when, as in this series, little honest information can be obtained from the patient.

Philippine Islands Med. Association Journal, Manila

16: 61-132 (Feb.) 1936

Present Orientation in Control of Malaria in Tropical Countries. A. Ejercito, Manila.—p. 61.
Our Legal Status as Physicians. L. P. Porras, Iloilo.—p. 73.
Some Local Problems of the Medical Profession Today. J. C. Nañagas, Manila.—p. 81.
Studies on Adulteration of Fresh Cow's Milk with Coconut Juice. P. I. de Jesus and S. Jao, Manila.—p. 85.

Philippine Journal of Science, Manila

58: 425-546 (Dec.) 1935. Partial Index

Vitamin Contents of Philippine Foods, IV: Vitamins A and B_1 in Various Fruits and Vegetables. A. J. Hermano and P. J. Aguila, Manila.—p. 425.
Observations on Geographic Distribution of Hookworm Parasites and Hookworm Disease in the Philippines. M. A. Tubangui, M. Basaca, A. M. Pasco and F. del Rosario, Manila.—p. 447.
*Purification of Antidysenteric Serum with Sodium Sulfate. O. Garcia, R. Villaamil and C. Pañganiban, Manila.—p. 471.
Three Poisonous Philippine Mushrooms. J. M. Mendoza and Simeona Leus-Palo, Manila.—p. 495.
Some Methods of Circumcision in the Philippines. G. S. Maceda, Manila.—p. 513.

Purification of Antidysenteric Serum with Sodium Sulfate.—Garcia and his associates employed a slight modification of the method used by Brunner and Pinkus in the concentration of diphtheria antitoxin with sodium sulfate. By following the original method, the amount of salt in the purified antidysenteric serum after repeated freezing and thawing ranged from 3.99 to 4.08 per cent, and this made the filtration of the serum difficult owing to the concentration of salt and gelatinous proteins that clogged the pores of the filter. Besides this difficulty the filtrate was found to have lost much of its immunologic properties. Instead therefore of freezing and thawing the serum, they dissolved the precipitate in water and immediately dialyzed it for not more than three days. By this method the serum after dialysis contained only an average of 0.12 per cent salt, and it filtered easily through a Seitz filter. In one performance one Seitz filter yielded about 300 cc. of filtrate in from three to four hours. The serum thus prepared possessed high protective properties and compared favorably in potency with the original unconcentrated serum, as shown by the results of protection tests. The purified serum is practically free from sero-albumin.

Public Health Reports, Washington, D. C.

51: 285-320 (March 20) 1936

The Picture of Heart Disease Mortality Obtained from Vital Statistics in Washington, D. C., During 1932. O. F. Hedley.—p. 285.
Distribution of Lymphocytic Choriomeningitis Virus in Organs of Experimentally Inoculated Monkeys. C. Armstrong, J. G. Wooley and R. H. Onstott.—p. 298.
Pathologic Histology of Lymphocytic Choriomeningitis in Monkeys. R. D. Lillie.—p. 303.

51: 321-362 (March 27) 1936

Results of Dental Examination of 1,908 White and Colored Males at the Ohio State Reformatory. W. M. Gafafer and C. T. Messner.—p. 321.
Susceptibility of the Opossum (Didelphis Virginiana) to the Virus of Endemic Typhus Fever. G. D. Brigham.—p. 333.
Strain of Endemic Typhus Fever Isolated from the Brain of a Wild Rat. G. D. Brigham.—p. 337.

Review of Gastroenterology, New York

3: 1-98 (March) 1936

Observations on Physiology and Pathologic Physiology of External Pancreatic Functions. C. W. McClure, Boston.—p. 1.
Continuous Acid Adsorption by Aluminum Hydroxide Drip in Treatment of Peptic Ulcer. E. E. Woldman and V. C. Rowland, Cleveland. —p. 27.
Pathologic Physiology of Icterus: II. Mechanism of Jaundice. N. W. Elton, Reading, Pa.—p. 35.
Electrocholecystectomy. L. R. Whitaker, Boston.—p. 42.
Postural Defects Related to Gastro-Intestinal Function. E. F. Hartung, New York.—p. 44.
Some Problems in Treatment of Peptic Ulcer. H. C. Rutherford-Darling, Sidney, Australia.—p. 53.
Twelve Years of Gastro-Enterology in Mexico. W. Nimeh, Mexico D. F.—p. 58.

Rhode Island Medical Journal, Providence

19: 31-42 (March) 1936

A Visit to Some European Cancer Clinics. H. C. Pitts, Providence. —p. 31.
Bronchiectasis. E. Windsberg, Providence.—p. 37.
The Physician in National Defense: Informative Address. G. M. Ekwurzel, Boston.—p. 38.

South Carolina Medical Assn. Journal, Greenville

32: 55-82 (March) 1936

Purulent Pericarditis. L. E. Madden, Columbia.—p. 55.
The Etiology and Treatment of Peptic Ulcer with an Analysis of Seventy-Five Cases. W. H. Speissegger, Charleston.—p. 61.
Tuberculosis of the Mammary Gland: Case Report. H. Y. Harper, Anderson.—p. 66.

Southwestern Medicine, Phoenix, Ariz.

20: 81-122 (March) 1936

Conservative Surgical Procedures versus Radical Partial Gastrectomy for Peptic Ulcer. V. C. Hunt, Los Angeles.—p. 81.
*Avoidance of Complications of Prostatic Resection. H. C. Bumpus, Pasadena, Calif.—p. 85.
Simple Description of Silicosis and Its Complications. W. W. Gay, El Paso, Texas.—p. 89.
Relationship of Psychiatry to the General Practice of Medicine. C. N. Sarlin, Tucson, Ariz.—p. 91.
Infant Feeding in the First Trimester. C. F. Rennick, El Paso, Texas. —p. 96.
Luetic Meningitis and Gumma of the Brain: Case Report. H. H. Varner and J. L. Green, El Paso, Texas.—p. 98.
Studies on Nature of Phagocytosis. Z. M. Flinn, Prescott, Ariz.—p. 100.
Medicine and Men: Discussion of Compulsory Sickness Insurance. F. E. Sondern, New York.—p. 103.

Avoidance of Complications of Prostatic Resection.—Bumpus points out that many of the complications following resection are attributable to errors in the preparation of the patient. In addition to the routine physical examination, roentgenograms of the urinary tract should exclude calculi of the kidneys, bladder and prostate. Unless diverticula are removed, resection will prove a failure as far as relief of symptoms is concerned. If impairment of renal function is great or urinary infection pronounced, transurethral surgery may be contraindicated and suprapubic cystotomy indicated. With suprapubic drainage the possibility of bleeding following resection is considerably reduced, as the patient does not need to void through the urethra until healing is complete. However, it tends to prolong convalescence, for the patient never feels that he has completely recovered until the suprapubic sinus has healed. A cystogram prior to surgery may demonstrate diverticula that do not empty and may demonstrate deformity of the bladder and not infrequently be the first clue of a nerve lesion which, rather than prostatic hypertrophy, may be the cause of the symptoms. It is prior to operation that prophylaxis against infection can best be instituted. The most distressing postoperative complication is incontinence. The proximal boundary of the field of operation is the verumontanum surrounded by the external sphincter. To excise tissue beyond this is to risk incontinence, and to excise the verumontanum is to lose the landmark of the safety zone. In transurethral resection the urethra must receive careful consideration. When this is neglected, stricture, the second most distressing postoperative complication, will inevitably occur. A stricture of the anterior or pedunculous portion of the urethra can never be cured and passage of sounds is a lifelong necessity. If only prostatic tissue is resected, urinary extravasation cannot result, but, if the base of the bladder or the prostatic capsule is perforated, extravasation of urine with all its distressing results is liable to occur. Sepsis, hemorrhage and uremia long associated with postprostatectomy may result but usually are less severe and more easily controlled after resection. Residual urine and postoperative dysuria are probably more frequent following resection with a loop electrode than following prostatectomy.

Western J. Surg., Obst. & Gynecology, Portland, Ore.

44: 133-198 (March) 1936

Endothelial Tumors. D. Lewis and C. F. Geschickter, Baltimore.—p. 133.
The Aschheim-Zondek Reaction in Early Diagnosis of Chorio-Epithelioma. E. M. Lazard and F. E. Kliman, Los Angeles.—p. 149.
*Pseudo-Icterus of the New Born. S. N. Pierce, Los Angeles.—p. 156.
Autotransplantation of Ovarian Tissue Following Hysterectomy and Bilateral Oophorectomy. H. N. Shaw, Los Angeles.—p. 165.
Gonadotropic Hormones: Division I. H. Evans, Berkeley, Calif.—p. 175.
Lingual Thyroid: Comprehensive Review: Division IV. M. L. Montgomery, San Francisco.—p. 189.

Pseudo-Icterus of the New-Born.—Pierce considers a group of cases in which the fetus appears to be jaundiced when it is born and loses most or all of the cutaneous discoloration with the first bath. Instances of this kind are not uncommon, yet they have inspired little comment. He designates the cutaneous manifestation of the syndrome as pseudo-icterus. The bodies of these infants do not show gross anatomic abnormalities. Their color varies from a muddy green to a bright greenish yellow. Because the vernix and the superficial epidermis alone have absorbed the pigments, the skin after cleansing looks normal or only slightly discolored. He cites eight cases which illustrate varying clinical manifestations on the part of the mother and all permit the inference that the fetus was slowly deprived of oxygen owing to an overmature placenta or one impaired by pathologic lesions. He concludes that greenish yellow discoloration of a newly born infant, pseudojaundice which disappears after its first bath, is attributable to the impregnation of the vernix and the superficial epidermic cells with bile pigments from the meconium. Its evacuation into the amniotic fluid, as well as changes of the fetal heart action and premature respiratory movements, occasionally occur well in advance of parturition; they are the consequences of fetal distress. What inaugurates these phenomena remains problematic, but strong suspicion is directed toward the placenta, which may become senile before the onset of labor, especially in cases of postmaturity. The prolongation of pregnancy, which has been described in experimental animals, is attested by the clinical observation of pregnant women.

West Virginia Medical Journal, Charleston

32: 149-196 (April) 1936

Health Promotion by Education. I. Galdston, New York.—p. 149.
Acute Appendicitis: Experimental Investigations. C. B. Pride and M. A. Rafferty, Morgantown.—p. 157.
Cardiovascular Roentgenology. V. L. Peterson, Charleston.—p. 161.
Reduction of Fractures with Local Anesthesia. R. H. Walker, Charleston.—p. 167.
Gallbladder Disease. C. Crump, Asheville, N. C.—p. 169.
Present Status of Transurethral Prostatic Resection. H. C. Myers, Philippi.—p. 173.
The Relation of Physician and Pharmacist. C. L. Jefferies, Bluefield. —p. 177.
*Ambulatory Method of Skin Grafting Small Areas by Use of Elastic Adhesive. W. Bronaugh, Belpre, Ohio.—p. 180.
An Interesting Case of Hysterical Psychoneurosis. J. E. Offner, Weston.—p. 181.

Method of Skin Grafting Small Areas.—Bronaugh utilized an elastic adhesive dressing in a case in which pinch grafts were used. The dressing is sufficiently water tight to keep the wound continually bathed in its own secretions. This lymphatic exudate has the necessary bacteriophagic property to destroy ordinary infections present and to prevent bacterial invasion. Also it is the best medium for growth of new delicate epithelial cells. The wounds left by removal of the grafts were also treated with elastic adhesive, exactly as the burned area. At the first dressing, nine days later, seven of them had healed and at the second dressing eighteen days later they were all healed. The patient was active at all times and did not complain of discomfort. The apparent advantages of the method are that it can be an office procedure, the patient is ambulatory, bathing the wound with saline solution is eliminated, and daily inspection and dressing are eliminated. The pressure from the tension dressing keeps the grafts in place, keeps the granulations level and enables epithelization from each graft and the wound edges to occur more rapidly.

FOREIGN

An asterisk (*) before a title indicates that the article is abstracted below. Single case reports and trials of new drugs are usually omitted.

Archives of Disease in Childhood, London

11: 1-48 (Feb.) 1936

Dwarfism with Retinal Atrophy and Deafness. E. A. Cockayne.—p. 1.
Value of Estrin for Premature Babies. A. Moncrieff.—p. 9.
Blood Volume and Circulation Time in Children. H. Seckel.—p. 21.
Rôle of Muscle in Obesity. P. Kahn and N. Smith.—p. 31.
Contribution to Pathology of Identical Twins. Cornelia de Lange.—p. 39.

British Journal of Dermatology and Syphilis, London

48: 53-112 (Feb.) 1936

*Leukoplakia Vulvae, Kraurosis Vulvae and Lichen Planus of the Vulva. Elizabeth Hunt.—p. 53.
*Factor of Immunity (Serologic) in Furunculosis. J. F. Smith.—p. 84.
Formation of Cheloids in Relation to Treatment of Lupus Vulgaris. F. F. Hellier.—p. 91.

Lichen Planus of the Vulva.—Hunt discusses seventy-three cases of lichen planus of the vulva, of which thirty-three showed some degree of atrophy or contraction of the vulva; viz., "kraurosis." The diagnosis of a lichen planus eruption is often fraught with difficulty when lesions of a rarer type predominate. Lesions were confined to the vulva and adjacent parts in only fifteen of the present cases, and in all the others lichen planus lesions of various types were present at sites remote from the vulva. When it is recalled that a lichen planus eruption may cause no direct or very slight subjective symptoms, the possibility arises that many patients suffering from lichen planus of the vulva never seek advice and that in other cases advanced atrophic changes of the vulva may be found in which symptoms have developed only at a later stage owing to the atrophic changes that have occurred. No causative factors for leukoplakia vulvae have been determined. The etiology of lichen planus is obscure, but ovarian dysfunction has never been suggested as a predisposing factor, since the eruption occurs in both sexes. Derangements of the nervous system following debilitating illness, anxiety, worry and overwork have long been recognized as associated factors in the causation of lichen planus, though many cases are on record in which none of these factors could be determined. Leukoplakia vulvae is stated to be a precancerous condition. Lichen planus is not a precancerous condition. Certain factors may be considered to contribute to the development of epithelioma in atrophic lichen planus lesions on the vulva. When atrophy of the vulva occurs there is increased friction of atrophic surfaces due (1) to the suppression of the secretions, owing to atrophy of the glands, with which the skin of the vulva is well supplied and which keeps the parts well lubricated, and (2) to the absence of the labia minora, which normally provide a soft buffer between the larger labia and protect the vestibule. In addition the dryness of the atrophic surfaces is in many cases aggravated by prolonged and/or ill advised applications for the relief of itching.

Immunity in Furunculosis.—Of the sixty-one cases in Smith's series, five were either cases of solitary boils or of several occurring simultaneously. The remaining fifty-six were of the recurrent type, and of these twenty were treated with formoltoxoid. Ten of these twenty were completely cured, four were improved, five were unimproved, and one was cleared but relapsed when local treatment was discontinued. Local treatment was given in all cases. Of thirty-six cases in which only local treatment was given, thirty-three were cured and three unimproved. As local treatment was given in all cases, the slight advantage shown by the cases in which no toxoid was administered is presumably accidental and devoid of real significance, but this investigation has afforded no evidence that injections of toxoid are of material value in the management of recurrent furunculosis, although they have a striking effect in raising the antistaphylolysin content of the serum. The average rise observed was to about sixteen times the original titer. Of four cases treated with autogenous vaccines, two were cured and two unimproved. The antibody titer was raised in one to eight times and in another to twice the original figure, while the remaining two showed no rise. This variation in the antigenic powers of different strains suggests that, if a vaccine is to be used at all, a good stock one, made from a strain of proved antigenic power, is likely to act better than an autogenous one. The case that showed the highest rise was unimproved, and one of the two that were cleared relapsed later and was not helped by a long series of injections of a so-called dissolved vaccine. The only permanently cured patient of the four was the one who showed no antibody response. Severe reactions to injection of the toxoid were uncommon. The whole trend of the investigation emphasizes the importance of local factors and the relative unimportance of the "immune state" of the patient, in dealing with furunculosis. Glycosuria, of course, is an occasional factor of prime importance and has been excluded from the present series.

British Journal of Experimental Pathology, London

17: 1-86 (Feb.) 1936

Typhus Group of Diseases in Malaya: Part I. Study of Virus of Rural Typhus in Laboratory Animals: Part II. Study of Virus of Tsutsugamushi Disease in Laboratory Animals. R. Lewthwaite and S. R. Savoor.—p. 1.
Id.: Part III. Study of Virus of Urban Typhus in Laboratory Animals. R. Lewthwaite and S. R. Savoor.—p. 23.
Determining Group of Human Blood Stains: Notes on Anomalous Group O Serum. D. Harley.—p. 35.
Immunologic Study of Typhoid Polysaccharide. N. N. Spassky and L. A. Danenfeldt.—p. 38.
Detection of Antigenic Differences in Mouse Erythrocytes by Employment of Immune Serums. P. A. Gorer.—p. 42.
Sizes of Viruses of Human and Swine Influenza as Determined by Ultrafiltration. W. J. Elford, C. H. Andrewes and F. F. Tang.—p. 51.
Comparative Studies of Louse-Borne (Epidemic) and Flea-Borne (Murine) Typhus Viruses. I. J. Kligler, M. Aschner and Sonia Levine.—p. 53.
Production of CBA Strain of Inbred Mice: Long Life Associated with Low Tumor Incidence. L. C. Strong.—p. 60.
Experiments on Chemical Behavior of Potato Virus X. F. C. Bawden and N. W. Pirie.—p. 64.
*Carbonic Anhydrase Content of Blood in Pathologic States in Man. T. H. Hodgson.—p. 75.
The Vi Antigens of Various Salmonella Types. A. Felix and R. Margaret Pitt.—p. 81.

Carbonic Anhydrase Content of Blood in Pathologic States.—Hodgson followed the distribution of carbonic anhydrase in the blood of normal subjects and in patients with various pathologic conditions. The amount of carbonic anhydrase varies over a wide range from 4.7 to 27 units in 10 cu. mm. of blood as compared with a range of from 13.9 to 17.5 units for normal subjects. The hematocrit values for the two groups range respectively from 12 to 60 and from 40 to 47 per cent of cells. Since cases are encountered that have a very low absolute carbonic anhydrase content in the blood and yet do not show marked impairment of respiratory function, it is reasonable to infer that in normal individuals there must be a considerable excess of enzyme over ordinary requirements. The data in the main show a rough correspondence between carbonic anhydrase and readings of the hematocrit. The most obvious condition in which to find an abnormal anhydrase content would be anemia. Low absolute values for carbonic anhydrase are shown in all cases except one—a case of pernicious anemia. This case showed 20.7 units of anhydrase, an icteric index of 21 and a reticulocyte count of 19 per cent. Another case of pernicious anemia showed 6.1 units of anhydrase, but only an occasional reticulocyte was present. The high anhydrase value of the former case may thus possibly be related to the number of reticulocytes present in the blood. All the other cases of anemia show low anhydrase values, and thus there is a rough correspondence between the low anhydrase content and the low hematocrit reading. However, the anhydrase index is on the average higher than for the normals, and the inference is that the blood corpuscles, less in number, are carrying more anhydrase. Five cases of cyanosis show an increased amount of carbonic anhydrase in the blood. All these cases except one show an increase in the hematocrit reading. The exception is a case of cyanosis from acetanilid poisoning, which gave a positive test for methemoglobin in the blood. A case of polycythemia vera, although having the highest hematocrit reading, has an anhydrase content only proportionately high, thus giving an anhydrase index within the normal range. All the cases of jaundice have raised anhydrase values and at the same time normal hematocrit readings, with the result that the anhydrase indexes are raised above the normal in every case. It is pos-

sible that this observation may be due to the lowering of surface tension caused by the presence of bile salts. If in vivo the enzyme is within the corpuscle, the substrate must diffuse inside the cell in order that the reaction may take place; if, on the other hand, the enzyme is located on the surface of the corpuscle, a decrease of surface tension might facilitate the reaction between enzyme and substrate. This increase in carbonic anhydrase in jaundice would thus seem to favor the supposition that the enzyme is situated at the surface of the corpuscle.

British Journal of Radiology, London

9: 71-142 (Feb.) 1936

Forty Years of Radiology (1895-1935): Review and Some Reminiscences. G. W. C. Kaye.—p. 76.
Calcium Changes and Their Importance in Diagnostic Radiology. G. H. Orton.—p. 102.
*Chronic Infection of Sacro-Iliac Joints as Possible Cause of Spondylitis Adolescens. S. G. Scott.—p. 126.
Radiation Treatment of Breast Cancer. G. Vilvandré.—p. 132.

Chronic Infection of Sacro-Iliac Joints and Spondylitis Adolescens.—Scott asserts that the onset of spinal symptoms signifies not the commencement of the disease but the final stages of a long standing pathologic condition. The primary cause of spinal arthritis of the young adult is in some way connected with an infection of the sacro-iliac joints, but in many instances they would seem to account for the recurrent attacks of so-called muscular rheumatism so frequently encountered in the young adult. The history of many of these cases goes to show that during the prespondylitic period the pains and aches that these patients experience are mistaken for various diseases. If the early stages of this infection of the sacro-iliac joints—the precursor of spondylitis adolescens—is to be detected, a routine roentgenographic examination of these joints must be carried out in every case in which recurrent attacks of muscular rheumatism, extending over a number of years, occur in the young adult. The roentgenographic interpretation of the sacro-iliac joints is difficult, and the recognition of early pathologic changes requires considerable experience; the age of the patient must be taken into consideration, as in early life the appearances of the sacro-iliac joints suggest some abnormality. Care must also be taken that the roentgenogram is standardized technically. The prognosis is bad, but it may be more hopeful in the same way as the removal of an infected appendix, gallbladder or tooth may influence a general arthritis, if the cause of the disease can be found and removed.

British Medical Journal, London

1: 245-294 (Feb. 8) 1936

Intestinal Obstruction. R. Warren.—p. 245.
Iridocyclitis. J. H. Doggart.—p. 249.
*Hydrated Magnesium Trisilicate in Peptic Ulceration. N. Mutch.—p. 254.
Estrogenic Action of Compounds of Androsterone-Testosterone Series. R. Deanesly and A. S. Parkes.—p. 257.
Immunization by Oral Route in Respiratory Infections, with Especial Reference to Influenza, Colds and Their Complications. D. Thomson, R. Thomson and E. T. Thompson.—p. 258.

Hydrated Magnesium Trisilicate in Peptic Ulceration.—Mutch points out that the presumptive suitability of hydrated magnesium trisilicate for the treatment of chronic peptic ulceration in the stomach, duodenum and jejunum depends on a combination of properties: 1. Its antacid power is sustained for hours in the presence of an excess of acid. This facilitates the continuous control of hyperchlorhydria in the gastric contents as a whole and also furnishes a basis for local antacid therapy in the floor of the ulcer. In the presence of acid the trisilicate acquires a gelatinous consistency and, if any of the mass lodges in the crater of the ulcer, it will progressively neutralize the acid which diffuses through it. 2. Its adsorbent power is sustained and cannot be exhausted in a few hours, and it cannot be saturated with foodstuffs adsorbed from the gastric contents. A great reserve will always be left for the removal of soluble necrotic products at the site of the ulcer and of toxic substances in general. 3. It has strong antipeptic powers available for the protection of the base of the ulcer from destructive digestion. 4. As its antacid power is utilized, hydrated silica is liberated in a form possessing strong adsorptive affinities for pepsin, food poisons and other substances. This activity of the end product intensifies the absorbent effect of the magnesium trisilicate. 5. It can be given in large doses without disturbing the general motility of the digestive tract. It does not cause either constipation or diarrhea. 6. No matter how much may is given it cannot reduce the gastric reaction materially below the neutral point. 7. Being insoluble in water, any unused excess is voided in the stools. It cannot be absorbed and so produce direct alkali poisoning. Fifteen patients with chronic peptic ulceration were treated with synthetic magnesium trisilicate. No other antacid preparation was employed. In every case the desired result was obtained with doses not exceeding 16 grains (1 Gm.) (anhydrous weight), but with very high acid figures it would appear advisable to use a higher scheme of dosage.

Glasgow Medical Journal

7: 49-96 (Feb.) 1936

"Secondary" Pellagra. I. Murray.—p. 49.
Spirochetal Jaundice (Weil's Disease): Investigation of Case. Grace A. Kerr.—p. 59.

Guy's Hospital Reports, London

85: 377-506 (Oct.) 1935

Studies on Tumor Formation. G. W. Nicholson.—p. 379.
Cerebrospinal Meningitis, with Especial Reference to Treatment of Associated Hydrocephalus. A. C. Hampson.—p. 431.
New Study of Heat Production in Man. T. W. Adams and E. P. Poulton.—p. 447.
The St. Cyres Lecture on Etiology of Cardiac Arrhythmias. M. Campbell.—p. 471.

Indian Journal of Medical Research, Calcutta

23: 573-836 (Jan.) 1936

Racemization of Proteins of Vibrio Cholerae and Related Organisms: Part I. Diamino Acids. B. N. Mitra.—p. 573.
Id.: Part II. Monamino Acids. B. N. Mitra.—p. 579.
Respiration and Glycolysis of Cholera and Cholera-like Vibrios. R. W. Linton, B. N. Mitra and D. N. Mullick.—p. 589.
Further Notes on Cholera and Cholera-like Vibrios. R. W. Linton, B. N. Mitra and S. C. Seal.—p. 601.
Experimental Observations on Cholera Vaccine. J. Taylor, M. L. Ahuja and G. Singh.—p. 609.
Comparative Study of Certain Selective Mediums Used in Water Analysis, Together with Review of Literature on Subject. T. N. S. Raghavachari and P. V. Seetharama Iyer.—p. 619.
Improved Technic for Isolation of Ascaris Eggs from Soil. P. A. Maplestone and P. K. Mukerji.—p. 667.
*Studies in Serology of Syphilis. C. C. Basu and H. N. Chatterjee.—p. 673.
Blood Groups of Angami Naga and Lushai Tribes. P. N. Mitra.—p. 685.
Favus in India. N. C. Dey and P. A. Maplestone.—p. 687.
Studies on Typhus in Simla Hills: Part I. Introduction. G. Covell.—p. 701.
Id.: Part II. Weil-Felix Reaction in Wild Rats. G. Covell.—p. 709.
Id.: Part III. Strain of Typhus Recovered from Wild Rats. G. Covell.—p. 713.
Spontaneous Tuberculosis in Laboratory Monkeys. K. V. Krishnan.—p. 721.
Investigation of Cheap Well Balanced Diets. W. R. Aykroyd and B. G. Krishnan.—p. 731.
Carotene and Vitamin A Requirements of Children. W. R. Aykroyd and B. G. Krishnan.—p. 741.
Observations on Heart Rate in Vitamin B_1 and C Deficiency. G. Sankaran and B. G. Krishnan.—p. 747.
Further Studies on Effect of Storage on Vitamin C Potency of Foodstuffs. S. Ranganathan.—p. 755.
Biologic Assay of Vitamin A in Diet of Indians. Ella Surie.—p. 763.
Biochemical Investigations on Different Varieties of Bengal Rice: Part III. Enzymic Digestibility of Rice Starch and Protein: Action of Salivary and Pancreatic Amylase as Well as of Pepsin and Trypsin. K. P. Basu and S. Mukherjee.—p. 777.
Biologic Value of Proteins of Green Gram (Phaseolus Mungo) and Lentil (Lens Esculenta): Part I. By Balance Sheet Method. K. P. Basu, M. C. Nath and M. O. Ghani.—p. 789.
Id.: Part II. Measured by Growth of Young Rats. K. P. Basu, M. C. Nath and M. O. Ghani.—p. 811.
Enzymic Digestibility of Pulses: Action of Salivary and Pancreatic Amylase and of Proteolytic Enzymes Pepsin and Trypsin. K. P. Basu and S. Mukherjee.—p. 827.
*Relation Between Composition of Diet and Urinary Excretion of Ascorbic Acid. R. K. Chakraborty and A. N. Roy.—p. 831.

Studies in Serology of Syphilis.—Basu and Chatterjee studied the serums of 561 cases by means of two modifications of complement fixation tests and two flocculation tests. An endeavor has been made to modify the complement fixation test in the light of recent work on serology. No single test has been able to diagnose all the cases of clinically known syphilis; the combination of more than one test is recommended. Quantitative complement fixation tests with variations in serum have given much more satisfactory results than those in which varia-

tions in complement are used. Judged from the point of view of sensitiveness the authors place the tests in the following order: serum dilution method (complement fixation), Harrison's method (complement fixation), Meinicke-Klarungs reaction II (flocculation) and Kahn standard test (flocculation). The Meinicke-Klarungs reaction II is more sensitive than the Kahn test but has a tendency to give more nonspecific positive reactions in epidemic dropsy and cancer cases, a point that ought to be investigated. About 3.5 per cent of cases of clinically known syphilis still remained undetected even when multiple tests were done, neurosyphilis constituting 2 per cent and other varieties 1.5 per cent. Malaria and kala-azar do not seem to have any effect on the tests.

Relation Between Diet and Urinary Excretion of Cevitamic Acid.—Chakraborty and Roy investigated the relation between the ingestion of high carbohydrate, high protein and high fat diets and the urinary excretion of cevitamic acid on two healthy Bengali young men. In the first subject they observed the average daily urinary output of cevitamic acid to be 9.54 mg. on the usual Bengali high carbohydrate diet; it rose to 12.07 mg. on the meat diet. It fell to 10.21 mg. when the subject was placed again on the usual high carbohydrate diet but rose again to 14.09 mg. on the high fat diet. On the resumption of the ordinary diet it fell to 9.57 mg., and it again rose to 14.65 mg. when the subject was placed on a casein diet. In the second subject the usual high carbohydrate diet gave a cevitamic acid value of 9.75 mg., which rose to 11.08 mg. on a meat diet. A period of the usual high carbohydrate diet brought the level down to 8.51 mg., which rose again to 14.8 mg. on a high fat diet. On being diverted to the usual high carbohydrate diet, the level fell to 10.46 mg. and rose again to 13.12 mg. on a casein diet. It is not improbable that the higher figures for the urinary excretion of cevitamic acid in England, as given by Harris and Ray, are due to the greater consumption of meat in that country. The relatively lower figures obtained by the authors do not necessarily indicate vitamin C subnutrition, as in some unpublished experiments they have found that a sharp peak is produced in the urinary excretion of cevitamic acid on the ingestion of extra vitamin C. It appears possible that cevitamic acid has some special rôle in the metabolism of fat and protein. The possibility of the presence of other reducing substance or substances in the urine, which might complicate these results, is under investigation.

Irish Journal of Medical Science, Dublin

No. **121**: 1-48 (Jan.) 1936

Some Present Day Public Health Problems. J. A. Harbison.—p. 1.
Radiology: Past and Present. C. L. McDonagh.—p. 7.
Attitude of the Obstetrician to Surgery During Pregnancy. R. M. Corbet.—p. 16.
Agranulocytic Angina. T. G. Wilson.—p. 20.
Choice of Operation in Treatment of Genital Prolapse. J. F. Cunningham.—p. 24.

Journal of Mental Science, London

82: 1-98 (Jan.) 1936

Causation of Mental Symptoms: Inquiry into Psychiatric Application of Hughlings Jackson's Views on Causation of Nervous Symptoms, with Particular Reference to Their Application to Delirium and Schizophrenia. M. Levin.—p. 1.
*Sinus Sepsis and Mental Disorder. R. E. Jowett.—p. 28.
Body Length-Leg Ratio in General Population and in Mental Hospital Patients and Its Possible Significance in Suicide. H. P. Strecker.—p. 38.
Potential Use of Temporary Treatment: Note. J. K. Marshall.—p. 43.
Some Methods and Problems of Psychotherapy. W. L. Neustatter.—p. 47.

Sinus Sepsis and Mental Disorder.—Jowett examined 500 routine cases of mental disease and found nasal sinus infection in 7.6 per cent. This percentage is compared with a similar one found in a similar series of cases in which similar criteria were used. It shows only a slight difference. In a control series of 184 mentally normal individuals the incidence of sinus suppuration was found to be not less than 5 per cent. Pioneer workers in this field reported a higher incidence. Their observations have promoted general investigation of the nasal accessory sinuses in mental disorder. Although subsequent investigations may prove a lower incidence of sinus disease in mental hospital patients than at first found, an incidence of up to 10 per cent infection demands investigation and treatment on grounds of general and possible local disorder. It is concluded that the incidence of sinus disease in mental disturbance is not greater to any appreciable degree than among the general population.

Lancet, London

1: 295-348 (Feb. 8) 1936

Maternal Mortality in Hospital: Review of Nine Hundred and Ninety-Nine Fatal Cases in the Glasgow Royal Maternity and Women's Hospital During Ten Years, 1925-1934. D. Baird.—p. 295.
Chronic Cicatrizing Enteritis: Phase of Benign Nonspecific Granuloma of Small Intestine. R. F. Barbour and A. B. Stokes.—p. 299.
Acriflavine as Urinary Antiseptic. E. W. Assinder.—p. 304.
*Inborn and Familial Tendency to Development of Hepatic Cirrhosis. F. P. Weber.—p. 305.
Modern Views on Hypertrophy of Prostate. P. Niehans.—p. 307.

Familial Tendency to Hepatic Cirrhosis.—Weber states that cases of hepatic cirrhosis in children, not due to alcohol or congenital syphilis or any known cause of cirrhosis, are usually regarded as the manifestation or one of the manifestations of a congenital-developmental disease, and the occasional familial incidence of cirrhosis has often been adduced in support of this view. He discusses the data in favor of there being an inborn tendency to hepatic cirrhosis and arranges his remarks under two headings: (1) examples of the familial incidence of hepatic cirrhosis, in which the cirrhosis has not been due to any known exciting cause, such as alcohol or syphilis, or in which an inborn familial tendency to the disease may be presumed because an exciting cause, such as alcohol, though present in one of the affected members of the family was absent in others; and (2) examples of hepatic cirrhosis accompanying and probably constituting a part of acknowledged diseases of the congenital-developmental class. Under congenital-developmental diseases and abnormalities he includes all truly inborn abnormalities and constitutional diseases, whether obvious at birth or manifesting themselves later at various ages (hemophilia, hemolytic [acholuric] jaundice, congenital porphyrinuria, amaurotic family idiocy, renal glycosuria, food idiosyncrasies and allergic peculiarities).

Medical Journal of Australia, Sydney

1: 153-186 (Feb. 1) 1936

Diet and Disease in Childhood. P. A. Earnshaw.—p. 153.
Diet and Disease in Later Life. C. Sippe.—p. 156.
Diet and Disease of Eye. E. O. Marks.—p. 157.
Suggestions for Reform in Nutrition. N. M. Gutteridge.—p. 159.
Diet in Disease. E. L. Cooper.—p. 163.
Relationship of Pituitary Gland to Carbohydrate Metabolism. A. B. Corkill.—p. 168.

South African Medical Journal, Cape Town

10: 83-118 (Feb. 8) 1936

A School of Hygiene. F. Daubenton.—p. 85.
Endometriosis. E. S. van der Merwe.—p. 86.
The Medical Aspect of Gonorrheal Rheumatism. P. Bayer.—p. 89.
Treatment of Gonorrhea in the Male. H. Gluckman.—p. 91.
Recent Advances in Schistosomiasis. F. G. Cawston.—p. 93.
Radium and X-Ray Treatment of Cancer. J. van Roojen.—p. 93.

Japanese Journal of Obstetrics & Gynecology, Kyoto

19: 1-76 (Jan.) 1936

Histologic Study of Peripheral Nerve in Human Female Genitals. M. Ozaki.—p. 2.
Effect of Colloidal Heavy Metals to Growth of Transplanted Tumors and Their Radiosensibility. T. Kikuchi.—p. 33.
*Two Cases Showing Symptoms and Signs of Slight Degree of Ileus During Pregnancy. T. W. Yun.—p. 51.
Anatomic Study of Conduction System of Heart in the Human New-Born and Fetus. K. Matsuda.—p. 57.

Slight Degree of Ileus During Pregnancy.—Yun presents two cases showing a slight degree of ileus during pregnancy due to an abnormal condition of the sigmoid flexure. The two showed classic signs and symptoms, and they were quite easily diagnosed. The sigmoid was enlarged and elongated, the junction between the descending colon and the sigmoid was sharply flexed, and a slight degree of torsion was present. Severe abdominal pain, distention of the abdomen, nausea, vomiting and headache were present. The ileus occurred at the sixth and the seventh month of pregnancy, respectively. If acute ileus with grave symptoms and signs is present, operation is indicated. In many cases the prognosis is bad, but in one of the author's cases a good result was obtained with medical treatment. Correct diagnosis is imperative and can be facilitated roentgenologically.

Presse Médicale, Paris

44: 353-376 (March 4) 1936

Dilatation of Bronchi: Congenital Malformation. R. Debré.—p. 353.
*Fictitious Asepsis and Total Sterilization. M. Gudin.—p. 355.
Treatment of Fractures of Maxillary Condyles. L. Lebourg.—p. 360.

Total Sterilization.—Gudin discusses in some detail the fact that asepsis in operating rooms is less satisfactory than is generally believed. It is because of this fictitious asepsis that bacteriologic complications of operations are still so common. He has attempted to correct this situation by hermetically sealing his operating room and sterilizing the air in it by means of formaldehyde. In order to neutralize the toxic gas, an exactly proportional dose of ammonia is later introduced. Finally the air is filtered through a solution of tartaric acid in sterilized water. The results of the systematic application of this system were as follows: 1. Pure cicatrization without microbial interference was constantly observed. 2. The serous and bloody exudates were naturally resorbed as soon as their drainage became unnecessary from the standpoint of infection. 3. Nonresorbable foreign bodies remained well tolerated in the organism. 4. Drainage was no longer a factor of contamination. 5. The regions previously contaminated did not receive further contamination from the air. He believes that the true asepsis which he can now create introduces a new period into the practice of surgery.

44: 377-400 (March 7) 1936

*Endocrine Hepatocardiac Syndrome. L. de Gennes, J. Delarue and R. de Véricourt.—p. 377.
Fundamental Elements of Treatment of Poliomyelitis. E. Terrien.—p. 381.

Endocrine Hepatocardiac Syndrome.—De Gennes and his collaborators studied a syndrome characterized by the existence and simultaneous development of a cirrhosis with cutaneous pigmentation, stigmas of infantile regression and, finally, severe cardiac insufficiency. Two observations are reported in which these three elements were found to be almost identical. It was impossible to determine their clinical order but the endocrine signs were apparently the first and preceded by a considerable period the appearance of pigmentation, the enlarged liver and the cardiac insufficiency. The syndrome affects boys primarily. Thorough histologic examination of the tissues in such cases indicates a typical cirrhotic pigmentation, extensive endocrine lesions (especially of the pancreas, thyroid, suprarenals and testicles) and an atonic dilatation of the heart with sound myocardial tissue. It is uncertain whether the endocrine lesions are at the basis of the clinical syndrome and are sufficient to explain the cirrhosis and the myocardial damage. The authors believe that this question is a matter well worth further study.

Riforma Medica, Naples

42: 385-420 (March 21) 1936

Oriel's Substance. R. Silvestrini.—p. 387.
*New Method for Determination of Dextrose in Urine. A. Gugliucci.—p. 389.
Activity of Thyroid Under Influence of Treatment at Salsomaggiore Springs. V. De Blasi and F. Introna.—p. 392.
Sign of Gastro-Intestinal Perforation in Inguinal Hernia. G. Casciaro.—p. 411.

Method for Determination of Dextrose in Urine.—Gugliucci describes a new method for quantitative determination of dextrose in the urine. It is based on the phenomenon of disappearance of the yellow in a potassium ferricyanide solution when dextrose is added to it at a high temperature. The phenomenon is due to the reduction of potassium ferricyanide by dextrose to potassium ferrocyanide. The reagent consists of a solution prepared with 9.90 Gm. of potassium ferricyanide, 60.85 Gm. of anhydride of sodium carbonate and a sufficient quantity of distilled water to make up 1,000 cc. of the solution. The solution is of an intense yellow and is stable. If 100 cc. of the solution is heated to the boiling point and a 1 per cent solution of dextrose is added drop by drop, the yellow disappears from the solution when enough dextrose has been added to make 0.01 Gm. The technic of the reaction is as follows: Ten cubic centimeters of the reagent is placed in a large test tube and brought to the boiling point. The sample of urine is added quickly drop by drop from a pipet graduated in hundredths of a cubic centimeter. After each drop is added, the solution is heated and its color examined until the yellow in it fades notably. The solution is kept boiling for a few seconds and allowed to cool. One then observes that the solution is no longer yellow. The quantity in cubic centimeters of urine is read from the pipet and in this manner the amount of dextrose in the urine is calculated. The calculation is made by dividing 10 (which is the amount of reagent solution used) by the number of cubic centimeters of urine added to it to produce the reaction. The result represents the amount of dextrose in grams contained in 1,000 cc. of urine. The reaction is visible under natural and electric light, and it is stable. It can be done with all the refinements used in other known methods of quantitative determination of sugar in urine; that is, dilution of the urine to one tenth in cases of notable glycosuria, purification of the urine when it contains large quantities of reducing substances and also dealbumination of it. The reaction gives results as exact as those given by other known methods, but it has the advantage over the others of its easier technic, rapid results and the use of only one reagent which is not expensive.

Archiv für Kinderheilkunde, Stuttgart

107: 193-256 (March 17) 1936

Prognosis and Treatment of Empyema During Nursling Age. S. Flesch.—p. 193.
*Pulmonary Abscesses During Childhood. R. Priesel.—p. 204.
*Disorders of Accessory Sinuses in Nurslings. Hildegard Schönberg.—p. 216.
Studies on Pharmacology and Pharmacodynamics of Childhood: Action of Febrifuges on Basal Metabolism of Febrile Children. G. Petrányi and A. Bános.—p. 220.
*Roentgen Irradiation of Erysipelas in Nurslings and Children. P. Sonnauer.—p. 225.
Studies on Number of Thrombocytes During Childhood. F. Becker.—p. 230.
Rare Forms of Nevi During Childhood. R. Steindler.—p. 237.

Pulmonary Abscesses During Childhood.—Priesel shows that postpneumonic pulmonary abscesses in children usually yield to purely conservative measures which aim at an improvement of the general condition and at an increase in the defense powers of the organism. Observations in twenty cases of postpneumonic pulmonary abscesses demonstrate that such measures nearly always result in cure. In pulmonary abscesses caused by aspiration of foreign bodies, conservative treatment is not enough and treatment by a specialist is necessary. Pulmonary abscesses, which develop metastatically by way of the blood stream from a suppurative focus (for instance in malignant mastoiditis with sinus thrombosis, in furunculosis or osteomyelitis) and are frequently multiple, have a rather unfavorable prognosis, although recovery occasionally occurs even in these malignant cases.

Disorders of Accessory Sinuses in Nurslings.—In the course of necropsies on 232 nurslings, Schönberg detected 154 with empyema of one or several of the accessory sinuses. The incidence of the sinus complications was especially great in the dyspeptic children and the question arises whether there is an etiologic connection between dyspepsia and empyema of the sinuses. The author suggests that, in view of the parenchymatous impairment of the liver existing in the majority of cases of dyspepsia, it may be assumed that, following a coryza or after another slight cold, empyema of the accessory sinuses develops which, particularly in the cases of otitis media, attacks the adjoining bone. This process is often slow and may cause only slight elevation of temperature. Depending on the duration and severity of the process, impairment of the liver results, which in turn manifests itself in a digestive disturbance. The author admits that these studies are still inadequate, but she stresses that in nurslings a cold or a coryza is not as insignificant a matter as is often assumed, as it may lead to empyema of the maxillary sinus or to disorders of the middle ear. With regard to the treatment of the sinus disorders in nurslings, she says that short wave therapy is advisable. Moreover, in nurslings with dystrophy, treatment of the liver by means of dextrose may perhaps prove helpful in addition to the usual measures.

Roentgen Irradiation of Erysipelas in Nurslings.—Sonnauer asserts that erysipelas is extremely serious in nurslings, for the mortality rate is high. According to most statistics it

is more than 50 per cent for nurslings less than 6 months old. In order to improve this unfavorable prognosis, the author decided to resort to roentgen therapy, which, according to numerous reports, had produced favorable results in erysipelas of adults. The treatments were given with a tension of 170 kilovolts through a filter of 0.5 mm. of zinc, at a focus-skin distance of 30 cm. and with an intensity of 28 roentgens per minute (measured in the air). The dose for each field was usually from 80 to 100 roentgens. The rays were applied not only to the area involved by the erysipelas but also to two fingerbreadths of the surrounding healthy tissues. The author cites a number of cases that demonstrate the favorable results of this treatment. One or two irradiations were usually effective. After from twenty-four to forty-eight hours there was usually a lytic reduction in fever and further extension of the process ceased, the redness of erysipelas being replaced by a reddish brown. The author advises that, if these effects fail to appear, the irradiation should be repeated after two or three days. He employed the roentgen treatment in twenty-seven cases. In seven of these the erysipelas was the partial manifestation of a generalized sepsis, the children being admitted to the hospital in a moribund condition. These died one or two days after the irradiation. However, of the other twenty cases (thirteen nurslings and seven children) only one terminated fatally and the other patients recovered.

Beiträge zur Klinik der Tuberkulose, Berlin

87: 519-646 (March 21) 1936. Partial Index

Pneumothorax or Thoracoplasty in Case of Large Cavities? J. Mille.—p. 535.
*Tuberculous Bronchostenosis and Its Differentiation from Bronchial Carcinoma. F. Fleischner.—p. 553.
Framework Systems of Lung and Their Physiologic and Pathologic Significance. F. Orsós.—p. 568.
Pathogenesis of Bronchiectases. M. Kartagener.—p. 610.
*Is Sexual Urge Increased in Patients with Tuberculosis? D. Barglowski.—p. 615.
Thoracoscopy and Thoracocautery in General Hospital. A. Böhme.—p. 627.
*Active Diphtheria Immunization of Tuberculous Children. H. Starcke.—p. 634.

Tuberculous Bronchostenosis and Bronchial Carcinoma.—On the basis of two cases, which were under observation for a long time and were anatomically investigated, Fleischner describes the clinical aspects of tuberculous bronchostenosis that leads to complete closure. Tuberculous anthracotic proliferations that originate in the tracheobronchial lymph nodes lead to deforming bronchitis and progressively to severe stenosis of the lobar bronchus. These changes are apparently most frequent in the middle lobe of the right side. As a result of the stenosis, atelectasis or atelectatic pneumonia develops in the pulmonary lobe and, finally, a permanent induration of the lobe. In rare cases the closure causes suppurating bronchitis, abscesses and gangrene. But there is also the possibility of a flare up of the tuberculosis and of caseation and softening. Clinically, the patients present the signs of old hematogenic tuberculous changes, such as apical and pleural indurations, calcified pulmonary and glandular foci, indurative mediastinitis, adhesive esophageal diverticula, esophagobronchial fistulas and extrapulmonary foci. During the early period of the disease a dry cough develops and occasionally there is hemorrhagic sputum. Dyspnea appears as a rule quite suddenly. This is the time of the development of the lobar atelectasis. It may take place without general manifestations or it may be accompanied by chills and fever and present the aspects of lobar pneumonia. In the first case the disease results in the development of lobar cirrhosis and the author thinks that many of the so-called hepatization pneumonias are postbronchostenotic lobar cirrhoses. In the second case there develops a chronic disorder characterized by irregular attacks of fever, and, if the course is unfavorable, suppurating bronchitis, abscess formation and gangrene may occur; in other cases it is the first sign of a flare-up tuberculosis that presents the aspects of the generalized phthisis of the aged. Concerning the diagnosis it may be said that one lobe, usually the middle one, shows greater density. Bronchostenosis can be recognized by auscultation, by the weakened or abolished respiratory sound, by the roentgenologic sign of mediastinal oscillation, and finally by bronchography. A tuberculosis in the anamnesis and the course the disorder takes permit only a conjectured differentiation from bronchial carcinoma as the most frequent cause of a bronchostenosis and from other rarer forms of inflammatory or tumorous bronchostenosis. A definite differentiation is possible only by means of bronchoscopy and biopsy. Compared with the incidence of cancerous bronchostenosis, the tuberculous form is rare.

Sex Urge in Patients with Tuberculosis.—Barglowski reports the results of anamnestic studies on the sex life of twenty patients with tuberculosis. He found not a single case in which it could be definitely proved that the tuberculosis caused an increase in the sexual urge. In a few cases there were some indications, but he suggests that even in these cases the tuberculosis was at most a factor in the tendencies to which the person had been disposed before the development of the tuberculosis. Relations of the sex urge to a toxic or a nontoxic course of the tuberculosis could not be detected. The author attempts to show in what manner the widely accepted opinion of an increase of the sex urge may have arisen. He calls attention to some external factors, such as the development of tuberculosis at the time of puberty when the sex urge develops. He mentions the importance of the constitutional type for the development of tuberculosis (large number of leptosomes) as well as for the characterologic development and the sexual behavior, pointing out that a greater sexuality may be the result of schizothymia rather than of tuberculosis. Observations on some cases indicated that the lack of interests and occupation influences the behavior of the sexual urge.

Active Diphtheria Immunization of Tuberculous Children.—To prevent the further spreading of diphtheria in a sanatorium for tuberculous children, active immunization was resorted to by Starcke. However, he found that, of 100 children who were given three injections of 1 cc. of diphtheria toxoid, five showed exacerbations of the tuberculous process after the third injection. After that he used the milder acting toxoid-antitoxin floccules, but of thirty-five children who were immunized in this manner one showed a considerable exacerbation of the tuberculous process after the third injection. He maintains that the further spreading of the tuberculous process is the result of the reduction in the resistance that is involved in the immunization. He concludes that, in the form of the triple injection, toxoid as well as toxoid-antitoxin floccules is dangerous for children with active tuberculosis.

Klinische Wochenschrift, Berlin

15: 401-432 (March 21) 1936. Partial Index

Tumor-like Formations in Adrenal Medulla as Result of Experimental Nicotine Intoxication. M. Staemmler.—p. 404.
*Vitamin C and Antithyroid Action. A. Schäfer.—p. 406.
*Alimentary Increase in Blood Sugar in Renal Diseases and Its Signficance for Sugar Metabolism. F. Oefelein.—p. 407.
Further Development of Diaphanoscopy in Gynecology. E. Klaften. p. 409.
Ischemia of Pulmonary Tissues and Their Sequels. C. E. Schuntermann.—p. 413.
Vitamin C Deficit During Pregnancy. G. Török and L. Neufeld.—p. 417.

Vitamin C and Antithyroid Action.—Schäfer directs attention to studies by Demole and Ippen which demonstrated that, in the case of simultaneous administration of vitamin C (cevitamic acid) and thyroxine, vitamin C counteracts the effects of thyroxine. Other studies conducted by these authors demonstrated that under the influence of thyroxine the vitamin C contents of liver and spleen disappear. On the basis of these observations, it was assumed that vitamin C has an antithyrotoxic action and that its application is justified in cases of exophthalmic goiter. Other investigators had observed a similar antagonistic behavior between thyroxine and carotene or vitamin A. In view of the results obtained by Demole and Ippen and of the action of vitamin A, Schäfer decided to investigate the point of attack of vitamin C as well as the justification of its use in exophthalmic goiter. He has studied vitamin C in the histologic thyroid test on guinea-pigs, as well as by means of Gundernat's tadpole test, and reaches the conclusion that vitamin

C has no antithyroid action and that consequently it cannot be used to influence the thyroid. Although an unqualified assertion that these results apply also to human subjects is not permissible, it can nevertheless be assumed by analogy with pharmacologic observations on thyroid extracts that vitamin C is incapable of exercising an essential influence on the human thyroid and thus holds no promise of an effective therapeutic application in exophthalmic goiter.

Increase in Blood Sugar During Renal Diseases.—Oefelein studied the significance of lesions of the renal parenchyma for the blood sugar content in patients without diabetes. He made dextrose tolerance tests on patients with nephrosclerosis and with glomerular nephritis and found that such tolerance tests produce considerable disturbances in the sugar metabolism in that the normal blood sugar level of the fasting stomach increases to a high level but also subsides again within a comparatively short time and that, in spite of considerable hyperglycemia, there is no glycosuria. These observations indicate that the kidney plays an important part in the regulation of the sugar metabolism. It is generally known that a normal sugar metabolism is produced by two organs: the pancreas, which produces the insulin, and the liver, which with the aid of insulin changes the dextrose to glycogen. The author points out that his studies make it appear likely that the kidney functions as a signal for the insulin secretion by the pancreas. He assumes that the intact glomerulus sends out an impulse that stimulates the insulin production. In case of severe lesions of the renal parenchyma, the kidney is incapable of signaling for the mobilization of the insulin at the right time, the reflex insulin elimination takes place too late, and a temporary hyperglycemia is the result. However, the stage of glycosuria is not reached because the pancreas functions properly and produces a sufficient amount of insulin to reduce the blood sugar to normal values in a comparatively short time. This assumed signal action of the kidney in insulin production also explains several other observations; for instance, the fact that a tolerance test with the same quantity produces usually the same type of blood sugar curve in the same person, while in different persons the same quantity produces different curves. This factor might be explained by the differing individual sensitivities of the renal parenchymas. Moreover, the temporary hyperglycemia that often appears in toxic and infectious processes might be explained in this manner, in that the intoxication impairs the sensitivity of the kidney as an indicator. However, the glycosuria in the absence of hyperglycemia, which also occasionally appears in renal disturbances, is not explained in this manner. The author suggests that this glycosuria is probably caused by the pathologic formation of glycogen in Henle's loops.

Wiener klinische Wochenschrift, Vienna

49: 385-416 (March 27) 1936. Partial Index

Ophthalmologic Aspects of Problem of Rheumatism. A. Pillat.—p. 385.
*Diagnostic Test for Hormone Disturbances of Male Sex Function and Its Clinical Application. E. Steinach, H. Kun and O. Peczenik.—p. 388.
Epidemiology and Treatment of Diphtheria in Styria. O. Studeny.—p. 390.
Foundations of Balneotherapy of Rheumatic Diseases. A. Strasser.—p. 394.
Possibility of Photodynamic Action of Vitamin B_2. M. Heiman.—p. 398.

Hormone Disturbances of Male Sex Function.—Steinach and his associates call attention to earlier laboratory tests which revealed that postpubertal castration of male rats results in a changed creatine metabolism, in that the animals lose the capacity to utilize the creatine they take in with the food and eliminate it largely unchanged in the urine. This result of castration is limited to the male sex. Moreover, the creatinuria always disappears following the injection of androgen but is increased by estrogen. Since eunuchoid rats likewise show an increased elimination of creatine, the authors conclude that the creatine test is an objective method for the determination of the endocrine function of the testes. They point out further that these experimental results corroborate and support the clinical observation that senile and eunuchoid men utilize only small amounts of administered creatine. They decided to devise a creatine test for detection of sexual disturbances caused by hormone deficiencies. They determined the capacity to utilize creatine by means of a creatine tolerance test. At first they resorted to the intravenous injection of creatine, but later the test was simplified by letting the patients eat 150 Gm. of cheese (emmentaler) and dark meat and then determining the creatine content of the twenty-four hour urine. The authors give a tabular report of the results they obtained with this test and conclude that the creatine reaction represents an objective indicator of the endocrine function of the male gonad and that it makes possible the differentiation of the sexual disturbances caused by endocrine deficiencies from those of other origins. If a person with sexual insufficiency excretes more than 10 per cent of creatine in the urine, an incretory deficiency exists, whereas values below 10 per cent indicate other etiologic factors, such as psychic factors or disturbances in the sympathetic nervous system. The authors describe their therapeutic experiences with androsterone benzoate in sexual insufficiencies. They gave intragluteal injections of 5 mg. of the preparation four times each week and continued this treatment for at least four weeks or longer. The cases treated were chiefly those with deficient erection or complete loss of potency. The first normal erections frequently appeared after eight or ten injections but, in order to obtain a more lasting effect, further injections are necessary. The cases in which this treatment was employed included those in which the sexual insufficiency was of endocrine origin as well as some in which it was due to other causes. The results were favorable in about 75 per cent of the cases, including many in which the sexual disorder was of psychogenic origin or was due to disturbances in the sympathetic nervous system. In patients with ejaculation praecox without noticeable deficiency of erection the results were often negative and the authors conclude that endocrine treatment is not indicated for these cases. The treatment also effected improvements in the general condition of the patients comparable to those produced by vasoligation.

Zeitschrift für klinische Medizin, Berlin

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*Involvement of Hypophysis in Development of Human Diabetes Mellitus: Action of Increased Elimination of Hormones of Fat and Carbohydrate Metabolisms on Saturated and Unsaturated Fatty Acids of Liver. G. Effkemann.—p. 585.
*Hyperergic Phenomena and Histamine. K. Gotsch.—p. 593.

Aminoacetic Acid Treatment in Progressive Muscular Dystrophy.—Borst and Möbius report four cases of typical progressive muscular dystrophy in which they resorted to the administration of aminoacetic acid. Only one of the four patients showed an improvement after prolonged treatment. The authors did not observe a decrease in the extracreatinuria that resulted from the aminoacetic acid administration; that is, there was no indication that the disordered muscular metabolism was normalized by administration of aminoacetic acid. They point out that besides creatinine there are apparently other substances of an unknown nature which play a part in Jaffé's reaction. The administration of aminoacetic acid to normal persons did not reveal a modification of the creatine-creatinine metabolism. The authors think that the different results obtained with aminoacetic acid by various investigators might be due to the fact that progressive muscular dystrophy is not always of the same nature and that perhaps periods of arrest may occur in the course of the disease, during which the metabolism of the remaining musculature shows normal behavior.

Involvement of Hypophysis in Diabetes Mellitus.—Effkemann points out that Anselmino and Hoffmann, in their studies on the hypophyseal regulatory mechanism in human diabetes mellitus, observed an increased elimination of the anterior hypophyseal hormones of fat and of carbohydrate metabolism

in the urine of diabetic patients as well as increased quantities of these substances in their serum. Thus it seemed likely that the excessive production of these hormones plays a part in the pathogenesis of diabetes mellitus. Increased ketogenesis and deficient glycogen fixation in the liver of diabetic patients seem to find a new explanation in the increased presence of the hormones of fat and of carbohydrate metabolism. The author states that it was proved in former studies that these two hormones produce changes in the saturated and unsaturated fatty acids of the liver. It was the aim of these investigations to study in their effect on the fatty acids of the liver the substances that Anselmino and Hoffmann detected in the serum and urine of diabetic patients and identified as the hormones of fat and of carbohydrate metabolism. First the author investigated the effect of the injection of the serum of diabetic patients on the hepatic fatty acids of young roosters and found that the unsaturated fatty acids as well as the total amount of fatty acids increase. He found that the ultrafiltrates of the alcoholic precipitates of diabetic urines, which have a p_H of 9.17, produce in rats an increase in the unsaturated fatty acids and in the total amount of fatty acids. Ultrafiltrates of a p_H of 5.42 produce a reduction in the saturated and unsaturated fatty acids. The author concludes that these studies furnish a new proof for the increased occurrence of the hypophyseal hormones of fat and of carbohydrate metabolism in the blood and urine of patients with diabetes mellitus.

Hyperergic Phenomena and Histamine.—Gotsch employs the term hyperergic as equivalent to allergic in the sense of a hypersensitivity. He points out that recent studies indicate that the antigen-antibody reaction of the allergic organism is caused by a toxin. The great similarity of hyperergic manifestations, especially of anaphylaxis, with the shock produced by the injection of histamine leads to the assumption that the toxin is a histamine-like substance or actually histamine. After citing studies that proved the presence of a toxin of histamine nature in the anaphylactic shock of dogs and guinea-pigs, the author reports his own studies on eighty-two persons without signs of an allergic disturbance and on forty-five allergic patients. He tested their reactivity to a weak galvanic current and to histamine. Summarizing, he states that there is no definite relationship between an allergic reaction and the skin reaction to the electrical irritation, for in patients with allergy such a reaction was often absent, while it was occasionally present in persons without allergy. However, the majority of allergic patients (forty out of forty-five) manifested a hypersensitivity to insulin. Nevertheless, histamine hypersensitivity is not necessarily a sign of an allergic condition, for it occurs also in persons without allergy, although it is most frequent in persons with hyperirritability of the vascular nervous system. The author points out that, in view of the fact that histamine plays a part in the majority of methods which have been recommended for nonspecific desensitization, it seems justified to try histamine in the treatment of allergic patients. He did this by administering histamine transcutaneously by means of a galvanic current of 8 milliamperes. The cathode was dipped in water and the anode in a freshly prepared histamine solution of 1:20,000 and applied to the chest or forearms. The first application lasted only five seconds, so as to avoid undesirable secondary effects. The duration and number of the later applications depended on the cutaneous reactions. In the course of the first two or three weeks the treatments were given daily as a rule, and in the following two or three weeks they were given two or three times weekly. This mode of treatment was employed in thirty-five allergic patients (thirty with bronchial asthma, two with migraine, one with hay fever and two with mucous colitis). Of the patients with asthma, five were completely cured and sixteen were greatly improved, while in the remaining nine the treatment proved ineffective. The patients with migraine were freed from their complaints, but the patients with hay fever and colitis showed no improvement. The improvement in the successfully treated patients lasted generally from three to four months, but in three cases it lasted more than a year. The author thinks that histamine therapy could be resorted to not only in cases in which a specific desensitization is impossible (sensitivity against many antigens) but also as an adjuvant to specific desensitization.

Zentralblatt für Gynäkologie, Leipzig

60: 673-720 (March 21) 1936

Pigment in Mucous Membrane of Cervix Uteri. H. Hinselmann.—p. 673.
*Clinical Aspects of Dysgerminoma. E. Fauvet.—p. 675.
*Question of Transperitoneal Passage of Ovum from One Side to the Other. F. Posatti.—p. 686.
*Determination of Sex According to Birthdays of Children and Without Sex Chromosome. O. Schöner.—p. 689.
Biologic Foundations of Periodic Fertility and Sterility of Women. E. Glaser and O. Haempel.—p. 702.
Further Studies on Mechanism of Development of Physiologic Genital Milieu. L. von Dobszay.—p. 707.

Clinical Aspects of Dysgerminoma.—Fauvet stresses the main aspects of dysgerminomas: their special position among the tumors of the ovaries and their appearance particularly in young or sexually deficient women and in true or pseudo hermaphrodites. Nevertheless, it has been found that they may appear also in older women and that they do not necessarily impair the reproductive capacity. Moreover, the formerly emphasized clinical symptomatology may fail in the diagnosis and, since dysgerminomas do not produce hormone manifestations like granulosa cell tumors and arrhenoblastomas, other characteristics must be searched for. This is important, not only because dysgerminomas are not as rare as might be assumed, in that they amount to about 3 per cent of the malignant ovarian tumors, but also because their prognosis is not at all unfavorable if they are removed early. The author describes three cases of dysgerminoma which he observed in a comparatively short time. He gives especial attention to the factors that are of value in determining the prognosis. He thinks that from the anatomic point of view tumors rich in cellular elements with negligible supporting tissues have an unfavorable prognosis. These diffuse growing tumors apparently have a tendency to infiltrate the surrounding tissues. However, if the epithelial nests are scarce in a richly developed connective tissue, the prognosis is not necessarily favorable. If hypophyseal hormones appear in the urine, it may be assumed that the tumor has a considerable proliferating tendency, although the tumor is not the source of the hormone. The appearance of the luteinizing factor indicates an unfavorable prognosis. The author also made elastometrical studies on dysgerminomas and found that the solid tumors cannot be designated as hard but rather as of an elastic consistency.

Transperitoneal Migration of Ovum.—After pointing out that animal experiments permit no definite conclusions regarding the possibility of transperitoneal or external migration of the ovum in human subjects, Posatti calls attention to the fact that the two tubal funnels are close together and that there is a possibility that the attraction fields of the two tubes, that is, the areas covered by the vortex current of the cilia and the suction of the peristaltic movements, not only border on each other but may even overlap. In view of this fact, it is possible that an ovum from one field reaches the other one. Moreover, there are cases in which conditions exist that prove an external (transperitoneal) migration of the ovum. In this connection the author cites (1) the existence of a pregnancy when the tube is missing on one side and the ovary on the other (such a combination is rare, but a case of this nature has been described by Rokitansky), (2) the existence of a tubal pregnancy in which the corpus luteum is on the other side, and (3) the existence of a pregnancy in a rudimentary accessory horn, if the ovary of the same side has no corpus luteum or is itself absent. To be sure, in this case, as in the event of a tubal pregnancy, the possibility of internal or uterine migration must be ruled out. However, since there exists only rarely a communication between the accessory and the normal horn, internal migration is practically out of the question. In order to gain more insight into the problem of external migration, the author made careful observations in the course of 214 tubal pregnancies that came up for operation in the last ten years. In the forty-five cases in which the ovary had to be removed, the corpus luteum was searched for and was found in twenty-five. However, in twenty cases it could not be found and the author assumes that in these cases it was on the opposite side. Even in some of the cases in which the ovary was not extirpated, the surgical report states that the corpus luteum was on the other side. The author reaches the conclusion that the development of tubal pregnancy may have some connection with

external or transperitoneal migration of the ovum, assuming that owing to the retardation caused by peritoneal migration the ovum is ready for nidation at the time of passage through the tube, and thus a tubal pregnancy results. However, definite conclusions will be possible only after more information has become available regarding the incidence of the transperitoneal migration of the ovum.

Determination of Sex According to Birthdays of Children.—Schöner directs attention to his earlier reports on the determination of the sex of offspring from the dates of birth, but he admits that his earlier studies were made on the basis of ovulation cycles of twenty-eight days. In this report he concerns himself with cycles of shorter and longer duration. He thinks that the fact that he is able to determine the sex of the children of a family on the basis of the sex of the first child, of the length of the ovulation cycle and of the birthdays, proves the following points: 1. The ova have their sex character before fertilization, and sex is consequently not determined by a sex chromosome. 2. The succession of the sexes is 2:1 in each ovary, the male sex predominating in the right ovary, the female sex in the left ovary. 3. Under ordinary conditions, the function of the ovaries alternates. He points out that he has been able to determine correctly the sex succession of the children in thirty-two families with from six to twelve children. In four of the mothers the ovulation cycle was 25.92 days, in four 27.32 days and in four 28 days, while in others it was 29.12 or 30.84 days. In a few cases two different ovulation cycles could be used. Of a total number of 218 children, 108 (eighty-two boys and twenty-six girls) originated in the right ovary, while 110 (sixty-six girls and forty-four boys) originated in the left ovary. This proves again that the right ovary produces more boys and the left more girls.

Hospitalstidende, Copenhagen

79: 169-196 (Feb. 18) 1936

*Etiology of Postvaccinal Encephalitis (in Part Illuminated by Bacteriologic Examination on Necropsy of Case). L. Heerup.—p. 169.

Etiology of Postvaccinal Encephalitis.—Heerup says that twelve days after vaccination of two sisters, aged 4 and 7, fever, headache, drowsiness and stiffness of the neck and back set in, with redness of the fauces and swelling of the neck glands. The younger child was discharged as well twelve days after the injection of poliomyelitis serum and smallpox convalescent serum. The older sister, in spite of the injection of poliomyelitis and vaccine serum, became hyperpyretic and somnolent and died two and a half days after the onset of the first symptom. Histologic examination revealed a pronounced infection hyperplasia of spleen, thymus, lymph nodes and liver, especially in the reticulo-endothelial system, with hemorrhages and necroses in the spleen and marked diffuse encephalitis in the brain and medulla oblongata, of the usual type in postvaccinal encephalitis. Bacteriologic examination of specimens from the organs proper showed a massive diffuse infection with Staphylococcus pyogenes-aureus in tonsils and lungs; the other organs were sterile. In the disorder in young children termed by him fulminant tonsillopulmonary toxemia, the author has demonstrated that toxins from infections in the tonsils and lungs, similar to that in this case, can cause rapid, fatal toxemia, and he cites five cases of acute encephalitis in children (Gretha Muhl) which correspond to his toxemia cases. He states that, after vaccination, vaccine virus can for a time regularly be established in the blood and organs; he discusses the possibility that toxins can produce encephalitis when vaccine virus has perhaps affected the reticulo-endothelial system, and he summarizes as follows: An apparently well child is vaccinated. A staphylococcic infection occurs in the tonsils and respiratory passages, or a similar infection hitherto held in check by the reticulo-endothelial system flares up when the latter is affected by the virus. The bacterial toxins cannot be sufficiently bound by the damaged reticulo-endothelial system and cause organic degenerations, toxic hemorrhage and a hematogenic perivascular encephalitis. Possibly the reticulo-endothelial system has previously been taxed by subclinical staphylococcic infections and is therefore more easily blocked by the vaccine virus, or these infections have caused an allergic condition, which explains the violent intensity of the tonsillopulmonary infection without more marked local reaction. Occurrence in different countries at certain seasons might depend on epidemic incidence of infections often subclinical, and the constant incubation time for postvaccinal encephalitis may be explained by assuming that the toxemia does not produce changes in the brain until the function of the reticulo-endothelial system is fully blocked, that is, at the height of the vaccine infection, after ten or twelve days. The effect of the convalescent serum may depend on an unblocking of the reticulo-endothelial system by neutralization of the vaccine virus. In postinfectious or parainfectious encephalitis the infection, instead of the vaccine virus, causes the function blockade. The author hopes that by application of his bacteriologic technic in postmortem examinations other investigators may be able to confirm or refute his theory.

Norsk Magazin for Lægevidenskapen, Oslo

97: 217-328 (March) 1936

Fundamental Important Results of Study of Constitution and Pathology of Constitution. Naegeli.—p. 217.
Experimental Contribution to Explanation of Relation of Corpus Luteum Extract to Estrogen. A. P. Jacobsen.—p. 224.
Traumatic Lipodystrophy: Contribution to Clinic and Pathogenesis of Lipodystrophy. G. H. Monrad-Krohn and R. Forsberg.—p. 249.
*Progressive Hereditary Cerebral Leukodystrophy (Merzbacher-Pelizaeus Disease): Four Cases. R. Forsberg and R. Strømme.—p. 261.
*Increase in Reticulocytes After Injection of "Anemic" Serum. E. Hjort.—p. 270.
Treatment of Fractures with Cuendet's Extension Apparatus. W. Otnes.—p. 278.
*Are "Duret Hemorrhages" Diapedesis Hemorrhages and Do They Possibly Require Long Time for Development? O. Berner.—p. 284.
Murder-Suicide. O. Berner.—p. 289.

Progressive Hereditary Cerebral Leukodystrophy.—In Forsberg and Strømme's four patients, a brother aged 13 and three sisters aged 7, 5 and 4, spastic phenomena, most prominent in the lower extremities, ataxia of cerebellar type and more or less marked psychic defects were common. A cousin of the maternal grandmother was "queer"; an older sister of the children has spontaneous nystagmus and rigidity of the lower extremities; one cousin has strabismus and another an unsteady gait. Differences in the clinical picture in the cases are attributed to different stages of development. The picture is at present dominated by progressive dementia, increasing rigidity, ataxia and gradually increasing involuntary movements. Different stages of the disturbance cannot be sharply distinguished. The authors' conclusion that this syndrome, because of numerous and essential points of clinical similarity, belongs to the form of heredodegenerative disorders of the brain described by Merzbacher-Pelizaeus is supported by the undoubted heredity, start in earliest childhood and chronic course. As far as they know, the disorder has not before been described in four siblings. In spasticity, ataxia, intension tremor and nystagmus there is a marked resemblance to multiple sclerosis, but the remissions that characterize multiple sclerosis have not been observed.

Increase in Reticulocytes After Injection of "Anemic" Serum.—Hjort says that intravenous injections in normal rabbits of serum from rabbits with recent massive hemorrhages produced an increase in the percentage of reticulocytes in one third of the cases, the rise and course resembling those after massive loss of blood. In the remaining two thirds of the cases there was either a slight increase or a slight decrease in the number of reticulocytes. "Anemic" serum from the same donor injected into two different recipients caused a noticeable rise in the reticulocyte count in one and a decrease in the other. The marked increase in reticulocytes in one third of the cases was not accompanied by a corresponding increase in the total number of red corpuscles.

Are "Duret Hemorrhages" Diapedesis Hemorrhages?—A woman, aged 58, was struck by a bus and immediately taken to a hospital under the diagnosis of concussion of the brain, but she died before arrival. Berner found macroscopically clear and typical Duret hemorrhages in the fourth ventricle. He states that the patient had lived at the most fifteen minutes after the accident and that his picture demonstrates that diapedesis hemorrhages can become visible to the naked eye in that time, and, further, that without a lesion of the head, fracture of the skull or injury of the brain itself, as in this instance, the hemorrhage in the fourth ventricle cannot be explained as a rhexis bleeding. He avers that the hemorrhages, by Duret believed always to be rhexis hemorrhages, are predominatingly, if not always, diapedesis hemorrhages.